# Exploring the contributions of cross-sector collaborations to Disaster Risk Reduction in the city of Harare: an investigation through a drought response lens


Thesis submitted in fulfilment of the requirements for the degree of Master of Science

By

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# DECLARATION

I, BALBINA KUDZAI NYAMAKURA, hereby declare that I conducted this research during the 2018-2020 period. I understand that plagiarism is wrong, hence I have cited and referenced work(s) from other people in this thesis. I have not allowed and will not allow anyone to copy my work with the intention to pass it off as their own work or part thereof.

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Date: 30/08/2021

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# DEDICATION

I am dedicating this thesis to my sisters: Shingirai Nyamakura, Gamuchirai Nyamakura, and Tatenda Nyamakura

# ABSTRACT

The Sendai Framework for Disaster Risk Reduction calls for collaboration across sectors in society as an effective way to reduce disaster risk in order to safeguard lives, human wellbeing, and development gains from potential disasters. However, the effectiveness of these cross-sector collaboration approaches has most often been studied in the context of rapid onset disasters such as floods, with less focus on slow-onset disasters such as multiple year droughts. There is also limited research on the contributions of cross-sector collaborations towards Disaster Risk Reduction in African cities. For this study, I set out to investigate cross-sector collaboration efforts contributing to drought response in the city of Harare, Zimbabwe; and how these collaborations were contributing towards fulfilling the four priority areas of the Sendai Framework. These include i) understanding disaster risk, ii) strengthening disaster risk governance, iii) investing in disaster risk reduction for resilience, and iv) enhancing disaster preparedness for effective response.

In this qualitative study, I made use of purposive and snowball sampling methods to select 14 key informants from national and local government, non-governmental organisations, and civil society organisations who were directly involved in eight drought related cross-sector collaborations. I conducted in depth semi-structured interviews with these key informants between 2018 and 2019. For the analysis, I followed prior developed themes based on Bryson et al. (2006) theoretical framework to understand cross-sector collaborations. I also applied a typology of barriers and enablers developed from the literature in the analysis, and interpreted emergent themes using NVivo software. I then assessed the contributions of the identified cross-sector collaborations to the activities listed under each of the four priority areas in the Sendai Framework.

The findings highlighted the socio-political and economic context of the city of Harare had seeped through and influenced the cross-sector collaborations responding to drought. They shed light on how taking advantage of widely accessible social media platforms serve to enhance collaborations. Additionally, the results highlight the importance of existing networks and relationships in enabling cross-sector collaborations to occur effectively. Most of the cross-sector collaborations occurring in response to drought were originally formed for other reasons and included drought response during the peak of the drought disaster. Collaborations were effective at contributing towards engaging communities in risk assessment and reporting at the local level (Priority 1) and ensuring continual provisioning of services (water) during and after disasters (Priority 4). I make suggestions for collaborations to consider issues of power and how these affect the effectiveness of collaborations on the ground with regards to ensuring social justice and reducing inequality. Finally, I conclude that

cross-sector collaborations would be more effective in response to slow-onset disasters when they are formed and applied before the disaster is at its peak. I also suggest that the design and implementation of the cross-sector collaborations be tailor made to consider the socio-political and economic aspects of the city in their design for effective response.

Keywords: Disaster Risk Reduction, Cross-Sector Collaborations, Drought, Climate Extreme Events

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# LIST OF ACRONYMS

| Acronym | Full |
|---|---|
| **AIPPA** | Access to Information and Protection of Privacy Act |
| **AU** | African Union |
| **CoH** | City of Harare |
| **CPA** | Civil Protection Act |
| **CSO** | Civil Society Organisation |
| **DCP** | Department of Civil Protection |
| **DRM** | Disaster Risk Management |
| **DRR** | Disaster Risk Reduction |
| **EIA** | Environmental Impact Assessment |
| **GoZ** | The Government of the Republic of Zimbabwe |
| **HCC** | Harare City Council |
| **ICT** | Information and Communications Technology |
| **IPCC** | Intergovernmental Panel on Climate change |
| **MoU** | Memorandum of Understanding |
| **NCCRS** | National Climate Change Response Strategy |
| **NGO** | Non-Governmental Organisation |
| **POSA** | Public Order and Security Act |
| **RTGS $** | Real Time Gross Settlement dollar |
| **SADC** | Southern Africa Development Community |
| **SDGs** | Sustainable Development Goals |
| **ToR** | Terms of Reference |
| **UNISDR** | United Nations International Strategy for Disaster Reduction |
| **UNOCHA** | United Nations Office for the Co-ordination of Humanitarian Affairs |
| **USD** | United States Dollar |
| **ZINWA** | Zimbabwe National Water Act |
| **ZimStat** | Zimbabwe National Statistics Agency |
| **ZimVac** | Zimbabwe Vulnerability Assessment |

# Chapter 1: General Introduction

## 1.1. Global calls for cross-sector collaborations in disaster response efforts

Cross-sector collaborations are partnerships that involve the sharing of resources, capabilities, and information between various sectors in society such as governments, private companies, Non-Governmental Organisations (NGOs), Civil Society Organisations (CSOs), and philanthropists to achieve a mutual goal (Bryson *et al.,* 2006). Such collaborations have traditionally been applied in various contexts such as in emergency management and disaster response (Simo & Bies, 2007; Kapucu & Hu, 2016; Nohrstedt, 2018; Sapat *et al.,* 2019). Over the last decade, the occurrences of devastating climate extreme events such as floods, heatwaves, and droughts have increased (Intergovernmental Panel on Climate Change (IPCC), 2014; Sharifi & Yamagata, 2016; Rus *et al.,* 2018). It is the responsibility of national and local governments to respond to disasters. However, in such catastrophic situations that transcend government capacity, resource constrained governments are unable to harness solutions on their own (Kapucu & Hu, 2016; Curnin, 2018). This magnifies the need for collaboration across sectors in addressing complex public issues (Kapucu & Hu, 2016; Stibbe *et al.,* 2018).

Despite the rhetoric around cross-sector collaborations being key to disaster response worldwide, in practice it has been observed that most of these collaborations are formed as reactions to rapid-onset disasters such as cyclones and flash floods (Simo & Bies, 2007; Carignan, 2013; Silva, 2017). Many collaborations are often rushed to match the rapidity of the disaster at hand (Carignan, 2013). However, under such unplanned, unfamiliar, and unpredictable situations it is often difficult to communicate, share, evaluate, and interpret situational information making collaboration challenging (Simo & Bies, 2007; Valecha *et al.,* 2013; Moshtari & Gonçalves, 2017).

Various institutions in international development have emphasised the need for partnerships through collaboration as central to the achievement of goals such as the Sustainable Development Goals (SDGs) and in addressing other public issues (Stibbe *et al.,* 2018). At an international level, the need to reduce the risk of disasters and safeguard development gains from climate extreme events through cross-sector collaborations has been endorsed by the Sendai Framework for Disaster Risk Reduction (Sendai Framework) (2015-2030) (United Nations International Strategy for Disaster Reduction (UNISDR), 2015). The Sendai Framework outlines four main priority areas to achieve Disaster Risk Reduction (DRR) goals. These are, i) understanding disaster risk, ii) strengthening disaster risk governance, iii) investing in DRR for resilience, and iv) enhancing disaster preparedness

for effective response. The Sendai Framework then proposes various activities that can be carried out collaboratively to fulfil these priority areas at international, national, and local levels.

## 1.2. The need to investigate cross-sector collaborations in African cities

Population growth rates are projected to result in more than 65% of the global population residing in cities worldwide by the year 2050 (Rus *et al.,* 2018; United Nations, 2018). Much of this increase is expected to be in Africa, Asia, and Latin America (Zhang, 2016; Jedwab *et al.,* 2017). These unprecedented increases in urban population bring new challenges that urban planners and government officials have not dealt with before (Kourtit *et al.,* 2014; Satterthwaite & Bartlett, 2017). Already, city officials in African countries are grappling with challenges such as increased demand for resources and service delivery, alongside increased levels of unemployment and poverty (Fox, 2014; Jedwab *et al.,* 2017). So far, poor maintenance of infrastructure in countries such as Malawi, Zambia, Zimbabwe, Nigeria, and Sierra Leone has resulted in a decreased number of households with access to piped water (Dodman *et al.*, 2017). Combined with extreme events such as drought and polluted water sources, water access issues in such cities have heightened and will be exacerbated over the years with recurring droughts.

African countries are vulnerable to the impacts of extreme events such as droughts due to limited resources and capacity in government departments to respond (Satterthwaite, 2017; Spires, 2017). Slow-onset disasters such as droughts are characterised by slowly accruing impacts that often transcend sector and departmental jurisdictions as they threaten the social, political, and financial aspects of cities (Cole *et al.*, 2021). Previous response to disasters has shown that without effective planning, response and communication strategies, collaborative response to disasters become very challenging and unfruitful (Moshtari & Gonçalves, 2017). As such, the ability to effectively respond to disasters relies on efficient proactive strategies and strong governance between multiple sectors (Cole *et al.*, 2021), which cross-sector collaborative approaches have potential to contribute towards. Since slow-onset disasters unfold over a much longer period, they provide room for planning and governance through cross-sector collaborations to occur long before the disaster reaches its peak. Slow-onset disasters provide an opportunity to assess the implementation and contributions of such collaborative approaches to effective disaster response.

While cross-sector collaborations have potential to contribute towards response to slow-onset disasters with slow cumulative effects such as droughts, evidence of their applicability or effectiveness is still lagging in the literature (Simo & Bies, 2007; Bryson *et al.,* 2015; Emerson *et al.,*

2015; Silva, 2017; Lemaire & Provan, 2018). This study aimed to investigate cross-sector collaborations from an African city perspective. This is because not much has been documented on the role of cross-sector collaborations in ensuring DRR in African cities (Van Niekerk *et al.,* 2020), especially the implementation of the Sendai Framework through fulfilling activities under the four priority areas at local levels.

The City of Harare (CoH), Zimbabwe is highly vulnerable to climate variability and change (Tau *et al.,* 2016). Often, the city experiences recurring and sometimes alternating periods of climate extremes such as droughts and floods (Government of the Republic of Zimbabwe (GoZ), 2019). The CoH is overwhelmed with multiple everyday stressors such as inequality, poverty, unemployment, and is in a fragile humanitarian condition due to recurring cholera and typhoid epidemics (GoZ, 2019). The CoH like the rest of the country has been facing challenges associated with high public debt, hyper-inflation, and high levels of corruption (Chatiza, 2019; GoZ, 2019). The relationship between national government and other sectors particularly the CSOs in the CoH is scarred with mistrust and suspicion (Chikoto-Schultz & Uzochukwu, 2016). These issues make responding to climate extreme events even more challenging. With a high disaster risk profile, the CoH needs collaborative Disaster Risk Management (DRM) strategies between various sectors to effectively respond to disasters. Since drought was being experienced in the CoH during the period of this study and the increasing trend in drought over time, national government had made calls for assistance in drought response. This study used drought response before and during the disaster as the lens to investigate how cross-sector collaborations would effectively contribute to DRR in the CoH.

## 1.3. Research aim and objectives

The study aimed to investigate the cross-sector collaboration efforts occurring in the CoH in response to drought, and their contribution to DRR at local level. To fulfil this aim, I addressed three main objectives:

i) To identify and unpack the nature, drivers, and processes of cross-sector collaborations responding to drought,

ii) To explore the barriers and enablers experienced by such cross-sector collaborations, and finally,

iii) To assess the extent to which cross-sector collaborations were contributing to fulfilling activities listed under the four priority areas of the Sendai Framework.

## 1.4. Usefulness of study

Most of the research on rapid-onset disasters in Sub-Saharan Africa concluded with the need for increased collaboration between various sectors (Raju & Van Niekerk, 2013; Douglas, 2017; Kita, 2017; Nahayo *et al.*, 2018; Ngwenya *et al.*, 2018; Salite & Poskitt, 2019; Atanga, 2020). Particularly, cross-sector collaborations need to be studied through the lens of slow-onset disasters such as droughts. This research will contribute towards understanding how this type of innovation can be made more effective in supporting municipalities and countries in fulfilling all four priority areas of the Sendai Framework. Moreover, the interdisciplinary nature of the study combines literature in inter-organisational networks, in this case cross-sector collaborations and DRR. This provides insights on how the model and role of cross-sector collaboration especially, can be applied in DRR in the African cities context where capacity and resources are lacking, and urban growth is extremely rapid.

## 1.5. Thesis structure

Following this introduction, chapter 2 provides the conceptual and theoretical background of this study. Chapter 3 provides an overview of the framework used to understand cross-sector collaborations developed by Bryson et al. (2006) as a conceptual and analytical tool to understand the nature, drivers, and processes of cross-sector collaborations (Objective 1). I also outline the typologies on the barriers and enablers to cross-sector collaborations developed from the literature (Objective 2). In chapter 4, I portray the CoH from various contexts needed to inform the study. In chapter 5, I describe the qualitative nature of the study and the qualitative methods used in the data collection and analysis. I also outline the method used to assess the contribution of cross-sector collaboration to activities under the four priorities of the Sendai Framework (Objective 3).

Chapter 6 is the first results chapter in which I present the nature, drivers, and processes of cross-sector collaborations responding to drought in the CoH (Objective 1). Chapter 7 is the second results chapter in which I present the barriers and enablers to cross-sector collaborations responding to drought in the CoH (Objective 2). In chapter 8, I synthesise the findings from chapter 6 and 7 and assess how cross-sector collaborations are contributing to the activities listed under the four priority areas of the Sendai Framework (Objective 3). Finally, in chapter 9 I pull the research together and provide key messages that could assist cross-sector collaborations to better contribute to disaster response at local level.

# Chapter 2: Conceptual and theoretical framing

## 2.1. Understanding and defining collaborations

Collaborations, partnerships, and alliances have been used in the literature interchangeably (Bryson *et al.,* 2015). Generally, collaborations are characterised by the need to address a mutual goal and are classified according to the type of partners involved. For example, collaborations between two or more government agencies are classified under public-public collaborations. Collaborations between government agencies and organisations in other sectors in society fall under public-private collaborations (Bryson *et al.,* 2015; Villani *et al.,* 2017). These may either be referred to as cross-sector collaborations or fall within the collaborative governance category (Emerson *et al.,* 2011; Scott & Thomas, 2017) (Table 1).

**Table 1: Types of collaboration and their definitions. This study explores cross-sector collaborations (row 3).**

| Type | Definition |
|---|---|
| **Collaboration** | "A *process in which autonomous actors interact through formal and informal negotiation, jointly creating rules and structures governing their relationships and ways to act or decide on issues that brought them together; it is a process involving shared norms and mutually beneficial interactions* (Thomson & Perry, 2006, p. 23)". |
| **Collaborative governance** | *"The process and structures of public policy decision making and management that engage people across the boundaries of public agencies, levels of government, and/or the public, private and civic spheres in order to carry out a public purpose* (Scott & Thomas, 2017, p. 192)". |
| **Cross-sector collaboration** | *"The linking or sharing of information, resources activities, and capabilities by organisations in two or more sectors to achieve jointly an outcome that could not be achieved by organisations in one sector separately"* (Bryson *et al.,* 2006, p. 44).<br><br>*"Partnerships involving government, business, non-profits and philanthropies, communities, and/or the public as a whole towards mutual goals"* (Simo & Bies, 2007, p. 125).<br><br>*"A collaboration between two or more organisations where complementary resources are brought together to tackle a common challenge or achieve a shared strategic goal."* (Stibbe *et al.,* 2018, p. 10)- **cross-sector partnership**<br><br>*"A process where multiple organisations make a singular effort to address problems that are proving to be too complex for individual organisations to address on their own"* (Wood & Gray, 1991, p. 4)- **collaborative alliances** |

Increasing recognition of the need for social justice has seen the rise in participatory approaches such as community participation (Adlard, 2014). Community participation explores participatory relationships from the perspective of communities or civil society. This bottom-up approach is meant to empower communities by providing a platform for engagements between communities and governments. In contrast, collaborative governance explores inter-organisational relationships under the assumption that the government is the initiator of those collaborations (Emerson *et al.,* 2011; Scott & Thomas, 2017). Therefore, it centres its perspectives on a national or local government point of view and how they can collaborate with other sectors to achieve mutual goals. However, according to Adlard (2014: p. 33), "*Neither bottom-up community participation nor top-down collaborative governance are adequate theoretical frameworks for practically enabling multiple parties to deal with complex realities*".

As the need for partnerships grew, *"Collaboration across societal sectors emerged…in part as a response to the limitations of traditional state-led, top-down development approaches*" (Stibbe *et al.,* 2018: p. 6). Cross-sector collaborations include various sectors in society from governments to individuals and entail the sharing of power and responsibility among all stakeholders toward achievement of a goal. Based on their nature, cross-sector collaborations have also been identified as key to addressing complex problems that require multiple knowledge systems and perspectives. Unlike collaborative governance, cross-sector collaboration is used in the body of literature that study inter-organisational relationships without the presumption that they were initiated by either government or community (Bryson *et al.,* 2006).

In this study, I use cross-sector collaborations to refer to those collaborations that include sectors in government and civil society, including CSOs and NGOs and in some cases the private sector; hence I adopted the definition of cross-sector collaborations by Bryson et al. (2006) i.e., "*The linking or sharing of information, resources activities, and capabilities by organisations in two or more sectors to achieve jointly an outcome that could not be achieved by organisations in one sector separately"* (Bryson *et al.,* 2006, p. 44). In this study, I differentiated between NGOs and CSOs by defining NGOs as non-state organisations involved in humanitarian or development cooperation, often active at international scales. I defined CSOs as voluntary non-state organisations that are formed and directed by members of civil society with no participation or representation of government (Chikoto-Schultz & Uzochukwu, 2016).

## 2.2. Why do organisations choose collaboration as an option?

### 2.2.1. Recognition of interdependency

As established in Section 2.1, organisations tend to collaborate to achieve an outcome that they would not be able to achieve on their own for various reasons, such as lack of expertise, resources, and knowledge (Thomson & Perry, 2006; Bryson *et al.,* 2015). According to Wang and Xiang (2007), organisations collaborate due to the recognition of interdependence and interactions between organisational goals. In addition, cross-sector collaborations have been approached as strategies to acquire various forms of resources (Scott & Thomas, 2017; Sapat *et al.,* 2019). Scott and Thomas (2017) highlight that the need to leverage high-level actions, gain reputational benefits, and gain external expertise were at the intersection of why public managers followed, led, and encouraged collaborations (Figure 1). Figure 1 also shows how public managers follow collaborations to increase their social capital and protect against certain losses (Scott & Thomas, 2017).

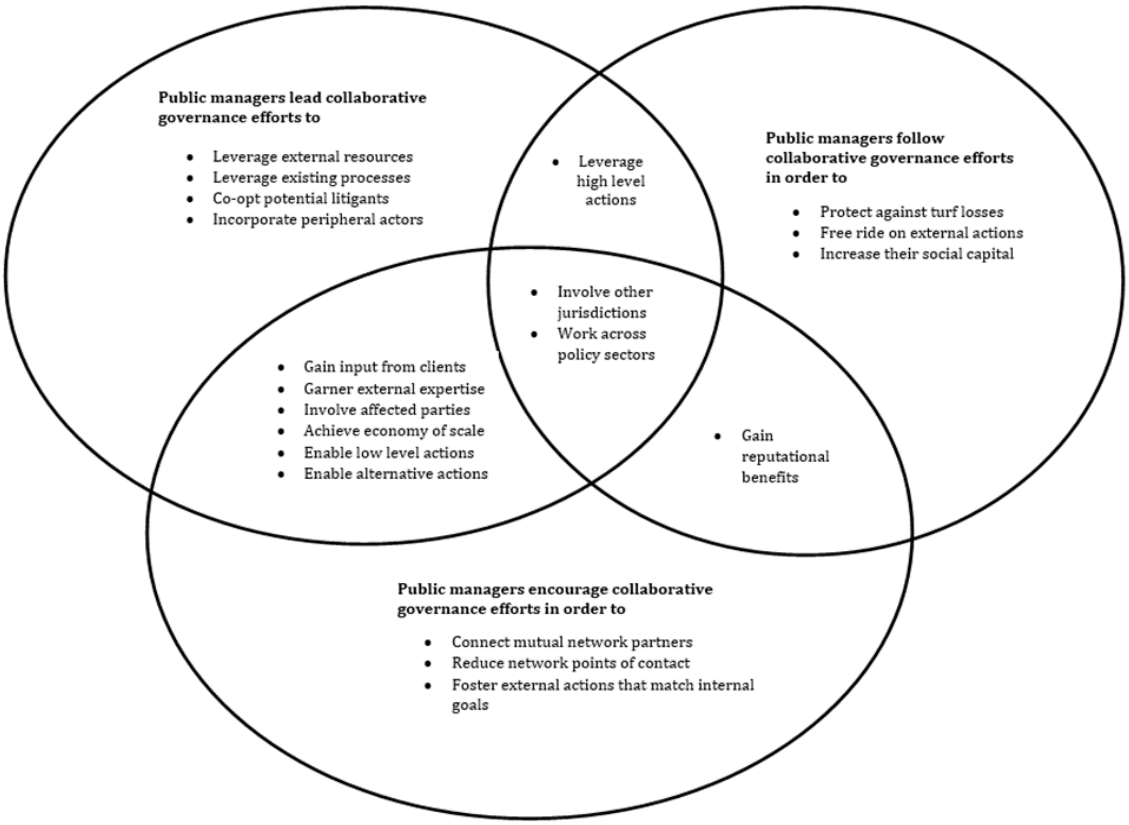


**Figure 1: Reasons why public managers lead, follow, and encourage collaborations (Scott & Thomas, 2017).**

Some organisations enter into collaborations for purposes of learning, since networks are considered good ground for innovation (Thomson & Perry, 2006; Hartley & Rashman, 2018). In strategic management, organisations choose to collaborate to increase their chances at, i) entering into new markets, ii) gaining competitive advantage, iii) acquiring new skills, and iv) accessing particular resources (Wood & Gray, 1991; Wang & Xiang, 2007). While the strategic management approach may explain the reasons why some organisations collaborate, these approaches assume that organisations have the freedom to choose to enter into a partnership and choose the members collaborating. This neglects the influence of other drivers (Wang & Xiang, 2007), such as pressures from donors and the role of policy mandates in collaboration (Scott & Thomas, 2017).

### 2.2.2. Mandated collaborations

With the increasing trends of global governance on issues such as climate change, sustainable development and DRR, the boundaries between the national and global governance are getting blurred by the day. This has more often meant that governance at national levels constantly needs to adjust to the governance ideas created at global scales (Lee, 2019). For example, being a signatory to a global treaty often means adjusting national plans to be in line with commitments agreed upon in the treaty. The influence of such global governance approaches on the choice to engage in cross-sector collaborations is often highlighted especially when it comes to funding. Funders or sponsors often place a prerequisite to funds and may require collaboration across sectors for countries to access funding (Bryson *et al.,* 2006; Scott & Thomas, 2017). At a national level, policies may stipulate the need for various departments in governments to collaborate with other sectors (Bryson *et al.,* 2015; Scott & Thomas, 2017). In Zimbabwe, for instance, the Ministry of Environment, Water and Climate through Environmental Management (EMA) Act 13 of 2002, The Zimbabwe National Water Act 31 of 1998, and the Zimbabwe National Water Authority (ZINWA) Act 11 of 1998 are mandated to collaborate in disaster alleviations (Chari & Ngcamu, 2017). Whether these prerequisites (specifically requesting collaboration) work or to what extent they may work in a particular context is often disregarded. This is in part because mechanisms such as cross-sector collaborations are viewed from a positive perspective due to what they seek to achieve in terms of addressing public issues (Taddese, 2015; Van Niekerk *et al.,* 2020).

### 2.2.3. The last resort

Government sectors have the mandate to respond to various public issues based on their portfolios. Bryson et al. (2006) argued that collaboration, particularly cross-sector collaboration only becomes an option in the case where the sector responsible for responding to a public issue has failed or is likely to fail. They also note that general antecedents such as environmental turbulence motivate for collaboration when the sector responsible becomes overwhelmed. As such, the perceived success in working together drives organisations in one sector to collaborate with various other sectors. In Cape Town, a last resort approach to cross-sector collaboration was applied at a place called Crossroads to address an incessant and violent crisis that was spanning years. The crisis had resulted in sixty thousand displaced people in thirty temporary settlements with warlords being in supreme control of the area (Adlard, 2014). Cross-sector collaboration was the only possibility for a variety of stakeholders from government, political parties, to autocratic squatter groups to name a few, since the resolution of the crisis was politically and socially imperative while the state parastatal in charge could not contain the situation on its own (Adlard, 2014). Bryson et al. (2006) offer a paradoxical conclusion that, while the need for success in terms of response to public issues necessitates the move towards collaboration, in most cases success is hardly ever guaranteed due to challenges associated with executing collaborations in real life. This is because, ‘‘*the stakeholders will be too preoccupied with their own affairs to manage the collaboration themselves*” (Adlard, 2014, p. 6), and success is only possible if multiple enablers are in place.

## 2.3. Disasters and cross-sector collaboration

### 2.3.1. Components of disaster risk

The risk of climate events becoming disasters (disaster risk) result from the interaction between vulnerability, exposure, and the climate event (hazard) (Abunyewah *et al.,* 2018; Rus *et al.,* 2018), as illustrated in Figure 2. The vulnerability of a system relates to how the inherent characteristics of that system contribute towards it being negatively affected by an extreme event (Abunyewah *et al.,* 2018; Ahmadalipour *et al.*, 2019). In other words, a system or community with characteristics such as poor infrastructure, poverty, or inequality will more likely be negatively affected by the effects of an extreme event. Exposure about the system or community occupying an area that would be negatively affected by a certain climate event (Ahmadalipour *et al.*, 2019).

Climate-induced disasters have increased in occurrence globally and countries that cannot adjust and adapt to climatic changes effectively (low adaptive capacity) continue to be most negatively affected

(Ahmadalipour *et al.*, 2019). Governments have tried to strengthen their DRR policies and strategies to better anticipate disasters and aim to reduce vulnerability and exposure to climate extreme events (Baudoin *et al.,* 2017). Governments have also taken to DRM which is the implementation of the policies and strategies developed under DRR (Unger *et al.,* 2017). At global levels, governance guiding the development and implementation of such DRR policies and strategies is founded on the Sendai Framework.

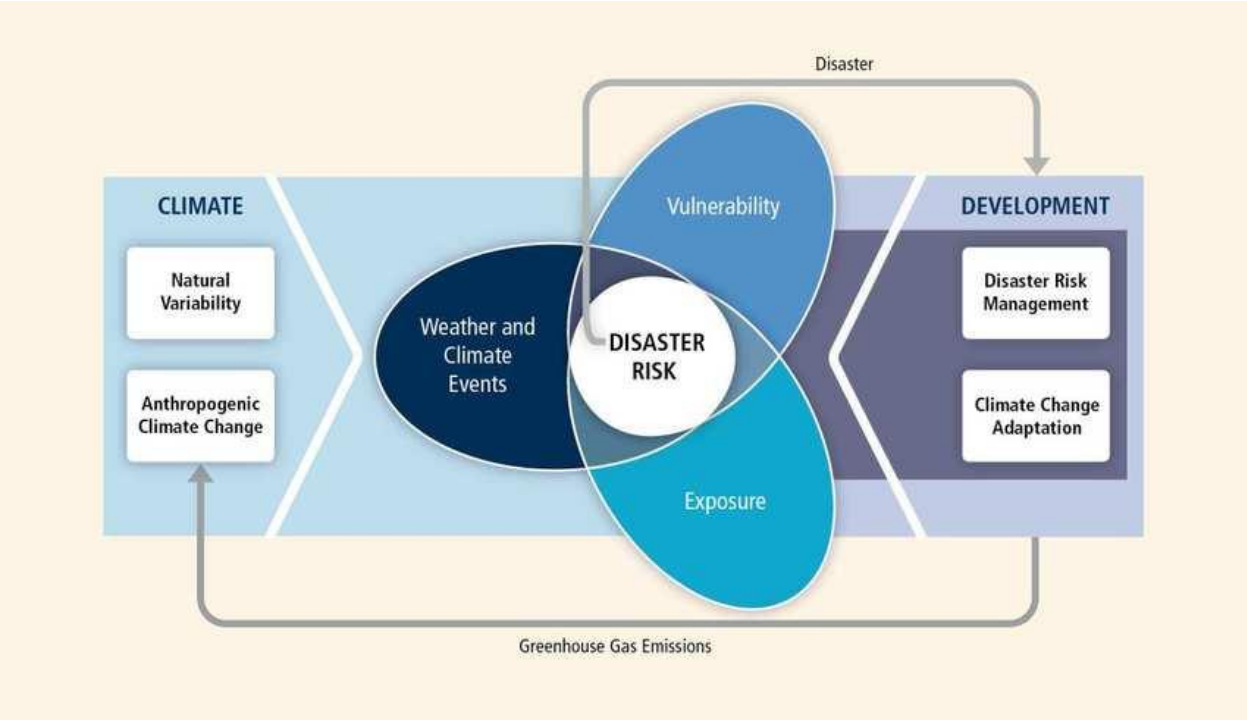


**Figure 2: Understanding disaster risk as a function of vulnerability, exposure, and hazards (IPCC, 2014).**

### 2.3.2. The Sendai Framework for Disaster Risk Reduction

The Sendai Framework is an agreement on the Post 2015 Development Agenda, which defines the global development framework to be followed post the Millennial Development Goals. It seeks to ensure that signatory countries are taking necessary measures to safeguard their development gains from the risk of disasters (UNISDR, 2015). The Sendai Framework aim to achieve this goal through seven targets (Figure 3). These targets include the reduction in, i) the global disaster mortality, ii) the number of people affected, iii) economic loss, and iv) damage to critical infrastructure (UNISDR, 2015). Additionally, it aims to increase, v) the number of countries with national disaster risk

strategies by 2020, vi) international co-operation to developed countries, and vii) the availability and access to early warning systems and DRR information (UNISDR, 2015).


**Figure 3: The seven targets of the Sendai Framework of Disaster Risk Reduction for the period 2015 to 2030 (UNISDR, 2015)**

Under the Sendai Framework are four main priorities that are to be fulfilled to fully ensure safety from disaster risk. These are, i) understanding disaster risk, ii) strengthening disaster risk governance to manage risks, iii) investing in DRR for resilience, and iv) enabling disaster preparedness for effective response (UNISDR, 2015) (Figure 4). The framework sets out activities that can be conducted at regional, national, and local levels for each of these priorities. The Sendai Framework, while noting the primary role of local governments in DRR, recognises the need for cross-sector collaborations in achievement of DRR goals as follows, "*There is need for public and private sectors and civil society organisations, as well as academia and scientific and research institutions, to work more closely together and to create opportunities for collaboration, and for businesses to integrate disaster risk into their management practices*" (UNISDR, 2015: p.10). As such, signatory countries have taken to DRM practices to implement DRR policies in their local contexts through cross-sector collaborations which I am exploring in this thesis.

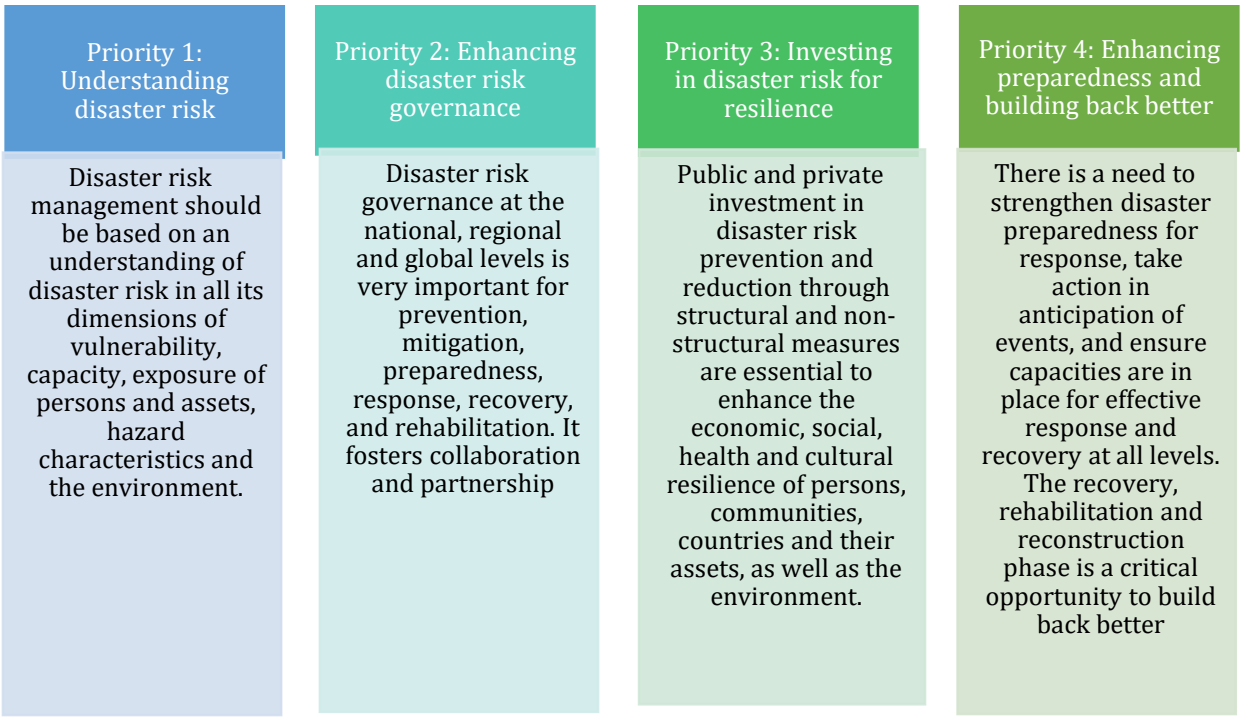


**Figure 4: The four priority areas of the Sendai Framework (UNISDR, 2015).**

## 2.4. The Sendai Framework for Disaster Risk Reduction in African countries

All countries in the African continent are signatories to the Sendai Framework and they have shown commitment towards implementing the framework in their countries. Countries in the African Union (AU) developed a Program of Activities for the implementation of the framework (Manyena, 2016). Additionally, countries within the Southern Africa Development Community (SADC) region developed the Regional Strategy Resilience Framework (RSRF) in late 2019 (AU, 2019). According to Manyena (2016), African countries are making progress towards the achievement of the seven goals listed in the Sendai Framework at national level (Section 2.3.2). However, there is poor progress at local level beyond the agreements that are made at high-level meetings (Manyena, 2016).

Critique on the Sendai Framework has emphasised how application of the framework may differ in African contexts and how this influences the ability of countries to achieve the outcomes stipulated (Oxley, 2015; Van Niekerk *et al.,* 2020). In the African context, reference has been made to the lack of funding, human resources, and political will to carry out activities listed under the Sendai Framework (Van Niekerk *et al.,* 2020). In South Africa for example, while the governance structures are good at national levels, a lack of resources at local level results in these governance structures not being translated well towards local governance of disasters (Manyena, 2016). Finally, most of the

assessments regarding the Sendai Framework in African countries have been done on the progress towards fulfilling the seven targets of the framework (Manyena, 2016; Mizutori, 2020; Van Niekerk *et al.,* 2020) and neglected the progress towards fulfilling the four priority areas. In this study, I focus on how cross-sector collaborations can contribute towards fulfilling the activities under the four priority areas of the Sendai Framework.

## 2.5. Collaborative responses to disasters

Scholars agree that local government response at all phases of a disaster (before, during, and after) need to be strengthened (Simo & Bies, 2007; Ejeta *et al.*, 2016; Kapucu & Ustun, 2018; Lee, 2019). As noted before, collaborations offer a wide range of benefits that makes them suitable to respond to life-threatening and complex situations such as disasters (Simo & Bies, 2007; Bryson *et al.,* 2015; UNISDR, 2015; Kapucu & Hu, 2016). Cross-sector collaborations have been applied in response to disasters of different origins from earthquakes to terror attacks. Recently, with increasing disasters of climatic origins, there has been a growing emphasis in the Sendai Framework to respond to climate extreme events through such collaborative approaches (UNISDR, 2015).

Cross-sector collaborations were applied in responding to climate-related disasters such as cyclones Rita and Katrina (Kapucu *et al.,* 2010). The cross-sector collaboration responses to these cyclones included government bodies, CSOs, and NGOs working together to deal with the crisis. However, from these collaborations evidence of miscommunication, poor coordination, and planning was found to have resulted in failure to attain desired goals (Simo, 2009; Kapucu *et al.,* 2010). Lessons from these collaborations highlight the importance of investing in relationships between partners through an ongoing process, and the need for resources to facilitate this (O'Leary & Vij, 2012). They also highlight the need for proper planning and co-ordination before the disaster strikes to effectively respond to disasters.

## 2.6. Cross-sector collaboration through the lens of drought in African cities

### 2.6.1. Characteristics and effects of drought

Droughts are naturally occurring slow-onset phenomena that do not have a universal definition but stem from a lack of rain (Wilhite *et al.,* 2014). Generally, a meteorological drought occurs when there is a lack of rain over repeated seasons (Shiferaw *et al.*, 2014; Nangombe, 2015). However, other types of droughts reflect the impacts of low rainfall on agroecosystems, hydrology, the economy, and society, as illustrated in Figure 5. For example, an agricultural drought refers to lowered soil water

content and consequent interactions with crop productivity (Dube, 2008; Wilhite *et al.,* 2014). A hydrological drought includes deviations from normal conditions for surface and underground water supply (Wilhite *et al.,* 2014). A socio-economic drought considers how meteorological, agricultural, and hydrological droughts interact with the economic and social aspects of society (Dube, 2008; Wilhite *et al.,* 2014). Over time, a meteorological drought may lead to these other droughts due to cascading influences (Figure 5). In this thesis, I refer primarily to meteorological drought and how it interacts with the CoH.

Socio-economic droughts being slow-onset hazards means their effects accrue slowly over a long period (Wilhite *et al.,* 2014; Ahmadalipour & Moradkhani, 2018). The impacts are unlike those of other hazards such as floods in that they often spread over large geographical areas, making them harder to quantify (Wilhite *et al.,* 2014). However, droughts have caused tremendous effects in various sectors and countries. More frequent droughts have occurred in countries like Ethiopia between 2010 and 2012 (Osuteye *et al.,* 2017). These resulted in the physical displacement of many Ethiopians and migration into refugee camps such as the Dollo Ado camp, where more than half of the children were found to be suffering from malnutrition (Muller, 2014). Countries such as Uganda and Mali have repeatedly experienced high death rates associated with famine, epidemics, and malnutrition due to drought (Muller, 2014). The reduction in agricultural production during drought events have resulted in food insecurity (Muller, 2014; Soto-Montes-De-Oca & Alfie-Cohen, 2019), and increases in food prices due to the economics of supply and demand. This results in people not getting enough food with adequate nutrition, and consequently in malnutrition especially in children (Muller, 2014; Soto-Montes-De-Oca & Alfie-Cohen, 2019).

Other effects of droughts documented include water shortages (Soto-Montes-De-Oca & Alfie-Cohen, 2019) due to lack of precipitation, abandonment of agricultural activities (Desbureaux & Rodella, 2019; Soto-Montes-De-Oca & Alfie-Cohen, 2019) due to low arable production, and death of livestock. The effects of severe droughts, as discussed here, transcend government sector capacities and often leave countries in humanitarian crises. Due to their multiple effects, droughts should already be attracting multiple stakeholders across sectors towards cross-sector collaborations. Examples include the multi-sectoral drought response consultative meetings to share experiences and knowledge on operational challenges faced in response to drought, as in Zimbabwe (United Nations Zimbabwe, 2016). Collaborative response to drought has also been seen in the dairy industry

between NGOs, dairy stakeholders, government departments during droughts to reduce risk to the supply chain of dairy products (Chari & Ngcamu, 2017).

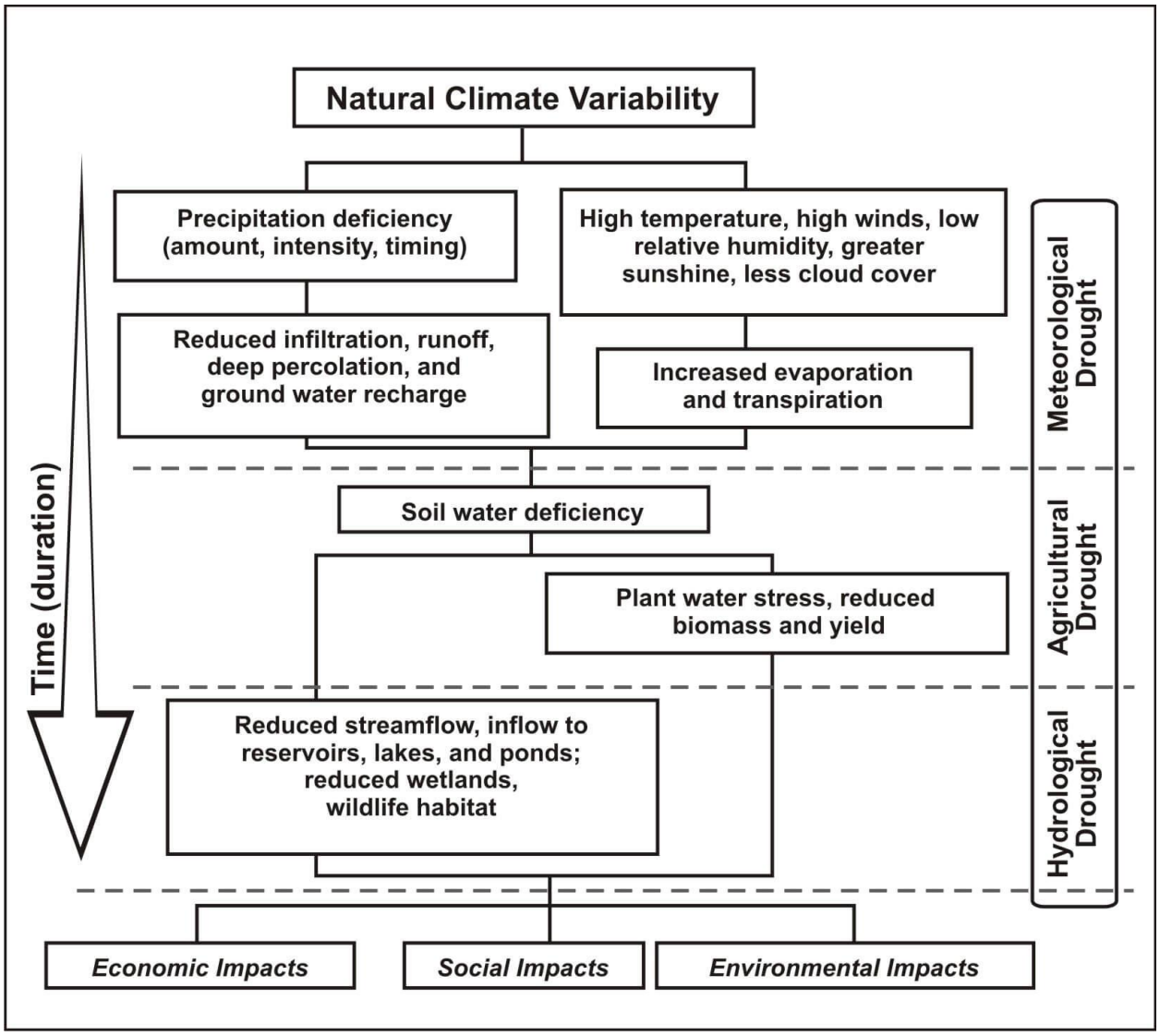


**Figure 5: Types of drought and their interactions over time (Muller, 2014).**

### 2.6.2. Impacts of droughts in African cities

Since most countries in Sub-Saharan Africa rely on rain-fed agriculture which mainly occur in rural areas, much of the focus is placed on the effects of droughts in rural areas (Muller, 2014; Samu, 2020). However, the effects of droughts in urban areas particularly cities are just as dire. The abandonment of agricultural activities usually leads to increased rates of migration into cities as people strive for employment and greener pastures (Desbureaux & Rodella, 2019). This increases the pressure on resources and service delivery, which is already a challenge in most cities. The reduction in rainfall

results in reduced water levels in dams which has negative effects on water quality (Mosley *et al.*, 2014; Peña-Guerrero *et al.*, 2020) and water quantity for the growing populations in cities, exacerbating water scarcity issues (Maskooni *et al.*, 2020). The lack of water in dams also affects hydroelectric generation in the energy sector for the cities that rely on hydroelectric power (Desbureaux & Rodella, 2019). This has direct consequences and results in increased power outages in cities (Desbureaux & Rodella, 2019). Given that most industries in cities need electric power, power outages will cause some factories to close resulting in a loss in economic production (ICLEI, 2018). Power outages may result in people finding alternative sources of energy such as fuelwood, which results in cutting down trees. Other alternatives are paraffin or gas which increases the number of fires especially in high-density areas and slums (Woolf *et al.*, 2016).

### 2.6.3. Public administration challenges in African cities

In most African cities, local governments operate as the administrative arm of the country in communities and are recognised as central for service provision as well as achievement of international goals at local levels (Spires, 2017). Local governments are expected to plan for the effects of climate change while simultaneously delivering on development goals. Cities in Sub-Saharan Africa have low adaptive capacity due to challenges associated with poverty, inequality, and declining economies (Satterthwaite, 2017). The response to drought in the city of Cape Town, South Africa highlighted how factors as poverty, inequality, and political influence can contribute towards the complexity of drought response in cities (Enqvist & Ziervogel, 2019). Lessons from the city of Cape Town pointed to the need for partnerships, recognising the role that citizens play in water management, and leadership in drought response (Ziervogel *et al.,* 2019). Recent studies have shown that local governments in African cities are lacking the necessary resources and capacity to deal with the current problem of rapid population growth (Fatti & Patel, 2013; Spires *et al.,* 2014). This results in an inadequate supply of services such as safe drinking water, sanitation, quality healthcare, consistent refuse collection, and basic emergency services (Satterthwaite, 2017). There is need for African cities to invest in cross-sector collaborations as a way to overcome the lack of capacity and resources in drought response.

# Chapter 3: Analytical Frameworks

## 3.1. Understanding the nature of cross-sector collaborations

To understand the nature, drivers, and processes of cross-sector collaborations related to drought in the CoH, I drew on the framework developed by Bryson et al. (2006) (Figure 6) as well as their updated propositions in Bryson et al. (2015) (Appendix 3A). Below are brief descriptions of the components from the frameworks that guided my understanding of cross-sector collaborations. Since the constraints and contingencies component relate more to barriers, I have incorporated the aspects of this component in the discussion in Section 3.2.

### 3.1.1. Initial conditions

The initial conditions speak to the general state of the environment and its complexity, and the reasons for choosing cross-sector collaboration. The components describing the initial conditions are three-fold. The first links the formation of cross-sector collaborations to turbulent environments such as emergencies and disasters (Bryson *et al.,* 2015; Kapucu & Hu, 2016; Curnin, 2018). Second is sector failure; here Bryson et al. (2006) argue that cross-sector collaborations form due to failure in one sector or inadequacy in one sector that could lead to failure (discussed previously in Section 2.2.3). Last is the direct antecedents component which includes, i) different organisations having a shared idea or agreement on what the problem is (Silva, 2017; Stibbe *et al.,* 2018); ii) cross-sector collaboration being mandated or required by external parties such as funders (see Section 2.2.2 above) (Purcal *et al.*, 2011; Bryson *et al.*, 2015; Lee, 2019), and iii) collaboration could have been as a result of prior relationships or networks (Murphy *et al.,* 2015). The initial conditions component thus provides a means to identifying the general environment, the different factors influencing the formation of the collaborations responding to drought in the CoH and how these interact with the processes, barriers, and enablers.

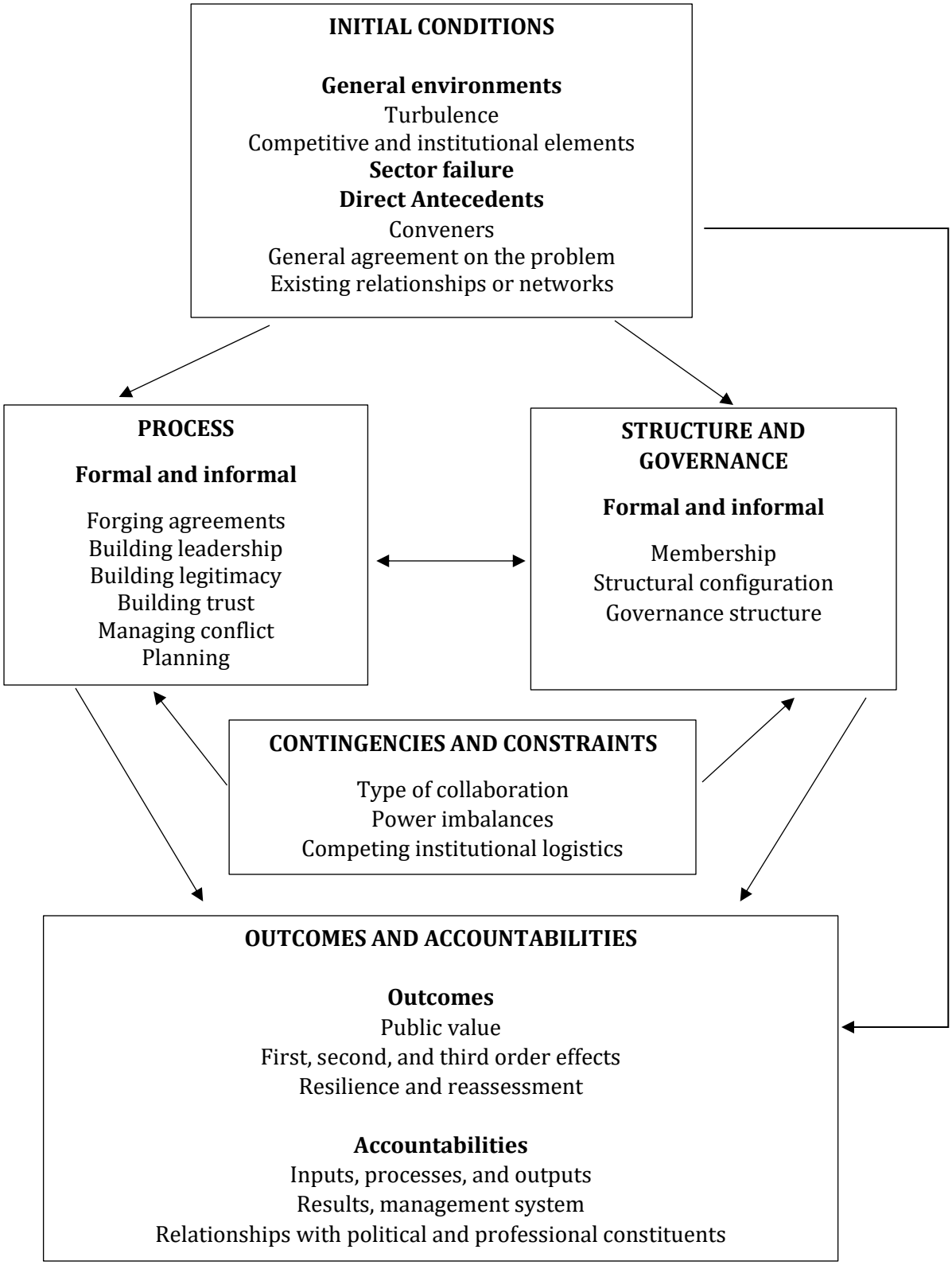


**Figure 6: Framework to understand cross-sector collaborations (Bryson *et al.,* 2006).**

### 3.1.2. Processes

Under the process component, Bryson et al. (2006) placed focus on themes such as forging initial agreements, building leadership, legitimacy, trust, managing conflict, and planning. These may be used as a guide in knowing what to assess in the collaborations. For building leadership, this component allows for the exploration of how the leadership roles were negotiated (Torfing *et al.,* 2019), or the presence of formal and informal leadership (Crosby & Torfing, 2017). For building legitimacy, the component enables examination of whether there was internal and external legitimacy of the collaboration as a form of organising, as an entity, as well as a trusted interaction among members. Furthermore, this component ensures the assessment of what processes were available to facilitate the building of trust, manage conflict, as well as the type of planning that collaborations followed.

### 3.1.3. Structure and governance

The structure component under the framework views collaboration not only as a form of 'organising' but as an 'organisation' that has systems in place to achieve its goals. The structural configurations component enables examination of how collaborations divide labour, define roles and responsibilities, generate rules and norms, and develop standard operating procedures (Crosby & Bryson, 2010; Kronenberg *et al.,* 2015; Scott & Thomas, 2017). Additionally, because collaboration structure is often influenced by the context where they are operating and strategic purpose of the collaboration, this component further allows for the assessment of how the structure of collaborations differ between collaborations with different strategic purposes. Membership examines the approach used to select members of the collaboration (Daymond & Rooney, 2018). Under the governance component is the chance to explore how decisions were made in collaborations, noting the difference between those collaborations with a centralised top-down approach and those with a diversified approach. This component is also concerned with how the voices of different stakeholders were incorporated into the decisions as well.

## 3.2. Exploring barriers to cross-sector collaborations

To effectively explore barriers to collaborations, I developed a typology for deductive analysis. For this process, I searched the literature on the key barriers to collaboration and public-private partnerships and grouped related concepts into a sub-theme and an overall theme. I identified three main themes in terms of the barriers to collaboration namely organisational barriers, contextual barriers, and partnership barriers (Table 2).

**Table 2: Themes associated with barriers to collaboration in the literature**

| Theme | Sub-theme | Concepts in the literature | References |
|---|---|---|---|
| **Organisational barriers** | Differences in organisational ideologies | • Different ideologies, missions, and cultures<br>• Organisational self-interests<br>• Hierarchical nature of other sectors | (Huxham & Vangen, 2005; Austin, 2010; Riggs *et al.*, 2013) |
| | Differences in organisational or sectoral systems | • No internal establishment of processes that help the collaboration<br>• Changes in members sent to the collaboration<br>• Different procedures, standards, and routines (*constraints and contingencies in figure 6*)<br>• Members hesitant to sharing information | (Lester *et al.*, 2008; Price, 2009; Austin, 2010; Akhtar *et al.,* 2012; Riggs *et al.*, 2013; Audet & Roy, 2016) |
| **Contextual barriers** | Power and political barriers | • Power imbalances (*constraints and contingencies in figure 6*)<br>• Political instability<br>• Political differences | (Price, 2009; Seybolt, 2009; Tadesse *et al.*, 2016) |
| | Resource barriers | • Lack of finances (travel and operations-short timeframes)<br>• Inconsistent funding<br>• Financial uncertainty<br>• Lack of personnel and capacity | (Huxham & Vangen, 2005; Bryson *et al.,* 2006; Lester, Birchwood, *et al.*, 2008; Price, 2009; Austin, 2010; Riggs *et al.*, 2013; Bryson *et al.,* 2015) |
| **Partnership barriers** | Planning issues | • Lack of formal processes at organisational and government levels<br>• No value seen in collaborating<br>• Lack of flexibility in the goals<br>• Not agreeing on common aims<br>• Partnership fatigue<br>• Different levels of commitment | (Lester *et al.*, 2008; Austin, 2010; Akhtar *et al.,* 2012; Riggs *et al.*, 2013; Alison *et al.*, 2015) |
| | Relational barriers | • Professional and organisational stereotypes, sectoral stereotypes<br>• Members suspicious of one another | (Lester *et al.*, 2008; Balcik *et al.*, 2010; Schulz, & Blecken, 2010; Alison *et al.*, 2015) |
| | Co-ordination issues | • Uneven distribution of labour<br>• Gaps in coordination<br>• Failure to incorporate inputs from other members<br>• Conflicts between members<br>• Aimless discussions and meetings<br>• Inability to balance power<br>• Lack of clarity about roles and responsibilities<br>• Lack of transparency | (Bryson *et al.,* 2006, 2015; Ansell & Gash, 2007; Simo & Bies, 2007; Lester *et al.*, 2008; Price, 2009; Akhtar *et al.,* 2012) |
| | Knowledge and communication barriers | • Unclear goals<br>• Complex and inappropriate documentation,<br>• Lack of common referral systems,<br>• Missing or inadequate recording | (Crosby & Bryson, 2005; Riggs *et al.*, 2013) |

### 3.2.1. Organisational barriers

Since cross-sector collaborations involve different organisations in different sectors strategically working together to achieve a joint goal, this means that collaborations are often operating at the intersection of different organisational systems, cultures, and ideologies (constrains and contingencies in figure 6) (Bryson *et al.,* 2016; Lee *et al.,* 2018). Studies show that failure to navigate around these differences results in collaborations not achieving their intended goals (Huxham & Vangen, 2005; Lester *et al.*, 2008; Austin, 2010; Bryson *et al.,* 2015; Kapucu & Hu, 2016). In most cases, challenges rise due to conflicting organisation systems and approaches, and this means that more time will be allocated to collaboration members trying to reach consensus (Tadesse *et al.*, 2016; Lee, 2019). Additionally, because there is a risk of not being able to achieve individual organisational goals, some organisations might seek to self-serve at the expense of the overall goals of the collaboration (Audet & Roy, 2016).

In collaborations involving public-private organisations, some information may be classified leading to government institutions being reluctant to share necessary information with non-state organisations (Crowe, 2013). Other aspects of organisational barriers have to do with sector or organisation stereotypes that may influence the perception of different members, hence affecting the relationships and trust between them (Price, 2009). Different organisation systems include aspects such as different timeframes, procedures, standards, and routines within these organisations that may make collaboration difficult. Different organisational ideologies relate to different missions, values, principles, and ideologies. These included issues to do with organisational self-interests and different hierarchies that may hinder collaborations.

### 3.2.2. Contextual barriers

Collaborations are embedded in societies and contexts that have unique aspects which may contribute negatively to collaborations. Price (2009) identifies contextual differences that involve the political climate within which collaborations are occurring in addition to aspects such as financial uncertainty and resource constraints (Lester *et al.*, 2008; Riggs *et al.*, 2013). Additionally, contextual factors such as the political climate may grant other partners more power than others, in addition to their designated roles within the collaboration. Finally, this category also included resource barriers such as the availability of human, financial, and technical resources.

### 3.2.3. Partnership barriers

With organisations coming from different sectors, representative members require networking skills beyond individual organisations. In the literature, collaborations that lacked adequate co-ordination and planning resulted in poor stakeholder identification and inconsistent meetings (Akhtar *et al.,* 2012; Riggs *et al.*, 2013; Audet & Roy, 2016). In others, partnership barriers involved poor communication and information sharing, and failure to incorporate the voices of small organisations (Daymond & Rooney, 2018). Additionally, issues to do with poor conflict resolutions, poor decision making, failure to build legitimacy, trust, leadership, and failure to equalise power were identified (Lester *et al.*, 2008; Austin, 2010; Akhtar *et al.,* 2012; Riggs *et al.*, 2013; Alison *et al.*, 2015). Some partnership barriers are associated with the process of collaboration, and include issues to do with inflexible goals, partners not agreeing to common aims at the start and not seeing value in collaborating. Other barriers included uneven distribution of tasks and labour. Relational barriers are based on how the people from different organisations and sectors process and reason situations. These may result in stereotyping others and may be informed by the socio-political environment. Lack of knowledge is associated with poor communication of project goals, lack of proper referral systems, and recording.

## 3.3. Exploring enablers to collaboration

On the surface, the success of collaborations hinges on the ability of the members to work together and share responsibilities. The literature does not provide a blueprint for success but rather identifies multiple factors that have the potential to contribute towards success and effectiveness (Ansell & Gash, 2007; Emerson *et al.,* 2011; Silva, 2017). Some of the enabling factors are addressing the barriers mentioned in section 3.2. or are ways to prevent barriers from affecting the collaboration. Table 3 below guided my analysis of enablers.

**Table 3: Themes associated with enablers to collaboration in the literature**

| Themes | Sub-themes | Concepts in the literature | References |
|---|---|---|---|
| **Comprehensive planning** | Common vision | ▪ Presence of one or more linking mechanisms<br>▪ General agreement on the problem (including agreeing on initial aims)<br>▪ A shared understanding of the problem – communication mechanisms (clear and strong vision) | (Ansell & Gash, 2007; Emerson *et al.,* 2011; Bryson *et al.,* 2015) |
| | Resources | ▪ Have resources and tactics for dealing with power imbalances and shocks<br>▪ Presence of committed able sponsors<br>▪ Personnel available<br>▪ Mobilisation of skills | (Austin, 2010; Bryson *et al.,* 2015; Scott & Thomas, 2017) |
| **Trust building** | | ▪ Existing networks ( including pre-existing relationships<br>▪ Stakeholders have capacity to act (right people involved) and have clear roles and responsibilities<br>▪ Establishment and maintenance of trust-building initiatives – high levels of trust<br>▪ Good interpersonal skills<br>▪ Expertise and experience | (Ansell & Gash, 2007; Price, 2009; Seybolt, 2009; Bryson *et al.,* 2015; Porter & Birdi, 2018) |
| **Effective processes, structures, and governance** | Co-ordination enablers | ▪ Use of resources to help equalise power and manage conflict in the early phases of planning<br>▪ Combination of deliberate and emergent planning<br>▪ Ability to take advantage of windows of opportunity<br>▪ Joint working (same geographical location)<br>▪ Various levels of engagement | (Simo & Bies, 2007; Emerson *et al.,* 2011; Bryson *et al.,* 2015; Porter & Birdi, 2018; Ziervogel *et al.,* 2019) |
| | Leadership | ▪ Presence of persistent champions who provide leadership<br>▪ Neutral conveners<br>▪ Understands actor characteristics of members in the collaboration<br>▪ Strong management and professional support<br>▪ Flexibility in management | (Ansell & Gash, 2007; Bryson *et al.,* 2015) |
| | Inclusiveness | ▪ Ability of the structure to handle changes in environment strategically<br>▪ Acceptance of different cultures, values, and norms<br>▪ Establishment of legitimacy internally and externally<br>▪ Inclusivity through stakeholder analysis in planning and inclusivity of other sectors in collaboration- harnessing capacity and competencies | (Simo & Bies, 2007; Price, 2009; Emerson *et al.,* 2011; Bryson *et al.,* 2015; Sapat *et al.,* 2019) |

| Themes | Sub-themes | Concepts in the literature | References |
|---|---|---|---|
| | Monitoring | ▪ Consists of tangible and intangible outcomes at multiple levels<br>▪ Consists of an accountability system that tracks inputs, processes, and outcomes<br>▪ Joint training and team building | (Simo & Bies, 2007; Price, 2009; Emerson *et al.,* 2011; Bryson *et al.,* 2015) |

### 3.3.1. Comprehensive planning

Bryson et al. (2015) identified that collaborations would not form until certain specific linking mechanisms were in place. These conditions include the need for the members to agree on the problem that the collaboration is trying to solve, and having a shared vision which will then reinforce the interdependency of organisations (Thomson & Perry, 2006; Bryson *et al.,* 2016). Scholars emphasise the need for authoritative texts and formal agreements to foster collective agency, as these are noted to help with accountability in the future (Bryson *et al.,* 2015; Peng *et al.,* 2020). Other aspects crucial towards the success of collaborations include, i) accommodating the different needs of different members, and ii) setting targets at the preparatory stage (Bryson *et al.,* 2015). These factors are not constrained to the beginning of the process but are meant to evolve as the collaboration progresses. Finally, the availability of resources at both the planning phase and in sustaining collaborations is essential, including the availability of a variety of skills.

### 3.3.2. Trust building

Trust building as an ongoing process has been identified in the literature as key in ensuring that collaborations ran smoothly (Sedgwick, 2017; Silva, 2017; Stibbe *et al.,* 2018). Pre-existing relationships between members were identified to contribute to success in that these are used to assess the trustworthiness and legitimacy of other members (O'Leary & Vij, 2012; Curnin, 2018; Tu & Xu, 2020). Furthermore, having respect and frequent transparent communication between the members was identified to increase trust between the members and hence the likelihood of success (Tu & Xu, 2020).

### 3.3.3. Effective processes, structures, and governance

Informed by context as discussed above, how collaboration is structured and implemented contributes towards its success. Scholars have advised that there should be both formal and emergent planning to increase the flexibility and adaptability of the collaboration (Bryson *et al.,* 2015; Silva, 2017). Additionally, how conflict is managed affects the relationships of the members as

well as the outputs of the collaboration. Empirical studies found that there is had a higher chance of success if time is devoted and provisions made for resolving conflict (Emerson *et al.,* 2011; Bryson *et al.,* 2015; Silva, 2017). Collaborative teams are advised to create an environment that enables collective negotiation, appreciates different skills, and power-sharing between the members to increase chances of success (Kapucu & Hu, 2016; Sapat *et al.,* 2019). Relating to outcomes, collaborations are more likely to succeed if they plan for both tangible and intangible outcomes including outcomes at multiple levels that can create sustainability. The ability to select diverse members with credible qualifications and knowledge on the nature of tasks to be carried out contributes towards success (Simo & Bies, 2007). Having the right people in the room also influences the roles and responsibilities of members which, if clear and specific contributes towards success (Thomson & Perry, 2006; Bryson *et al.,* 2015). Additionally, the presence of individuals committed to leadership was noted as important in drawing members together and building momentum (Thomson & Perry, 2006).

# Chapter 4: Study area context

## 4.1. The City of Harare

This study was conducted in the CoH, the capital of Zimbabwe (Figure 7), a metropolitan hub where commercial and industrial functions occur. Based on the 2019 census, the CoH is the highest populated city in the country with a population of close to two million people (Zimbabwe National Statistics Agency (ZimStat), 2019). Being the capital city, CoH experiences a high influx of people migrating from rural and other urban areas in search of better living conditions (Mahachi, 2012; CoH, 2018). Consequently, inter-provincial migration rates to Harare are highest in the country (ZimStat, 2012). This has been aggravating issues such as land use change with people building settlements on wetlands, degradation of physical infrastructure, and increasing pressure on service delivery (Mahachi, 2012).

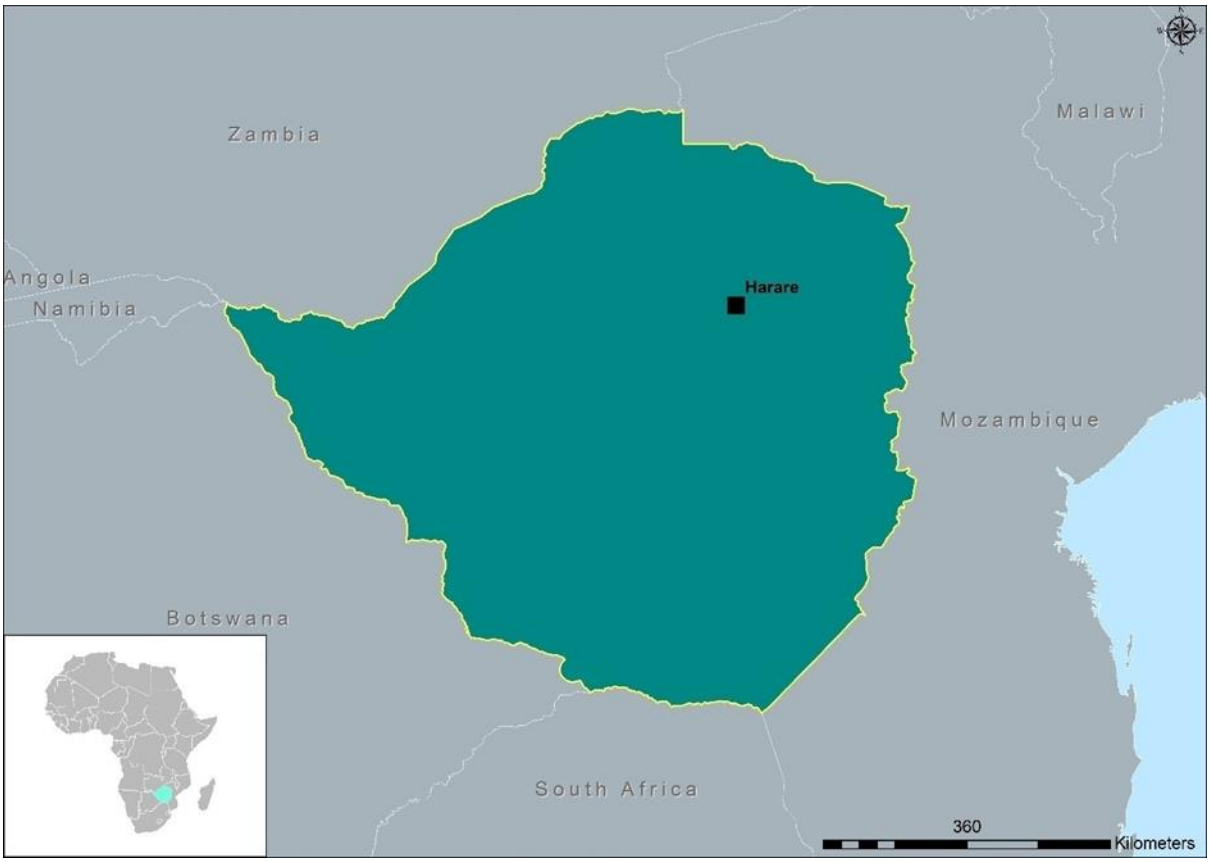


**Figure 7: Locality map of the city of Harare in Zimbabwe (map by author).**

## 4.2. A socio-economic perspective

The majority of the population in the CoH, like the rest of the country, are employed in the informal sector. With high unemployment rates and inequality, more than 60% of the population in the city live below the poverty line (GoZ, 2019). The CoH is located in a politically polarised society where the population is torn between political party lines (Lebas, 2020). CIVICUS, a platform that maps countries based on how free the civic society is, classified Zimbabwe to have a repressed civic environment, which is one stage away from the 'closed' stage experienced in countries such as DRC and South Sudan (CIVICUS, 2019). The macro-economic environment of Zimbabwe has been unstable, and this has had significant effects on the pricing system. Several changes to the monetary system have occurred since the country's 2008 economic crash and this contributes to the CoH having an uncertain financial environment (Nhapi, 2009; Matanda, 2019). The country's economic collapse of 2008/9 was followed by the adoption of a multicurrency monetary system. In 2009, the country adopted the use of the United States Dollars (USD) as a legal tender, and in 2016 the government introduced the Bond note and Bond coins, and finally, in 2019 the government introduced the Real Time Gross System (RTGS) dollar (Nhapi, 2009; Matanda, 2019). Consequently, a three-tier price system existed by the time this study was conducted, in which products were priced in, i) Bond notes, ii) Bond coins, and iii) the RTGS/Ecocash price.

## 4.3. Biophysical and climatic overview

The CoH is predominantly covered by savannah and grassland biomes (Food & Agricultural Organisation, 2018). It experiences a similar climate to the country's average, with annual surface temperatures between 9.6 $^{o}$C and 21.7 $^{o}$C and an annual average rainfall of 831 mm (ZimStat, 2018). Topographically, the CoH sits on a flat and marshy plateau on a watershed (Nhapi, 2019). It is located on the Upper Manyame Sub-Catchment (Figure 8) which drains through the CoH along with other towns on its way to Lake Chivero (the city's main water source) (Broderick, 2012; Misi *et al.,* 2018). The geological expression of the Upper Manyame Sub-Catchment on which the CoH sits varies extensively. However, all underlying rocks are of igneous and metamorphic origin classified as hard rock (Broderick, 2012). As such, the aquifers in the city are unconfined as they are not able to store water in their unaltered state, this means that groundwater storage depends on the level of fracturing or weathering of the bedrock (Broderick, 2012). Most of the southern side of the CoH is underlain by highly resistant massive granitic rocks, making it difficult to develop groundwater storage. This then contributes to the city being water scarce (Broderick, 2012; Nhapi, 2019).

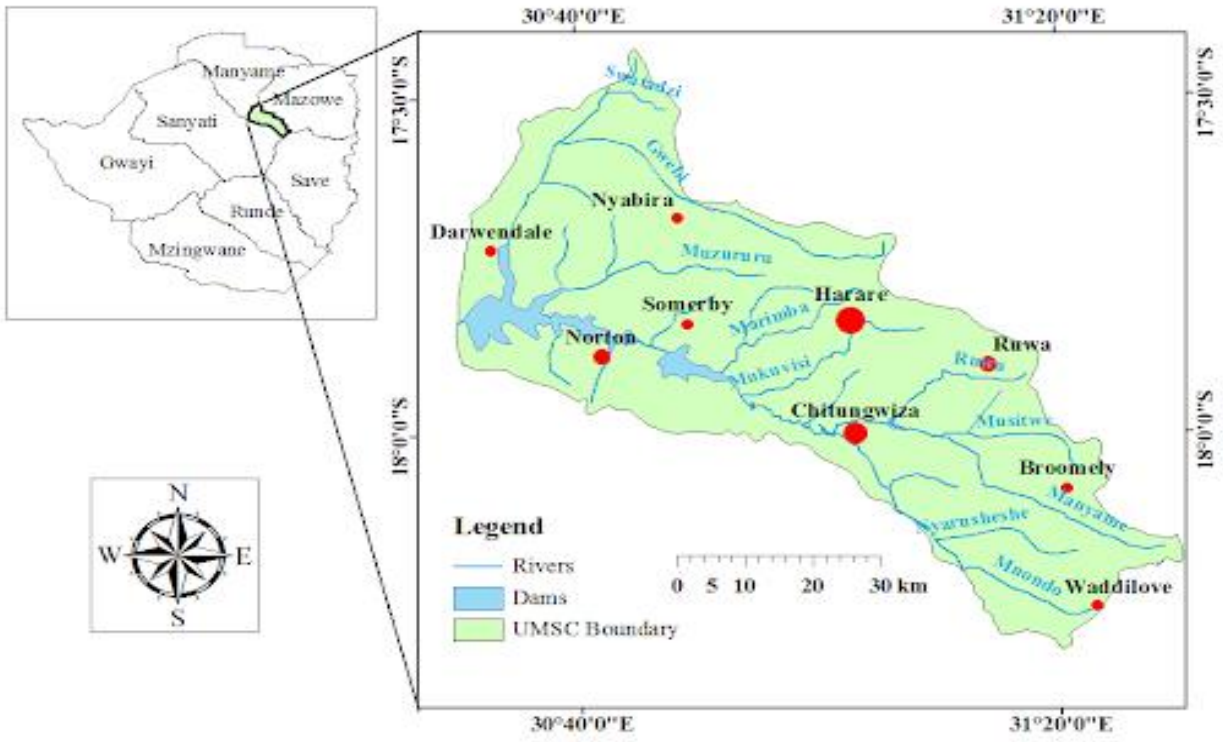


**Figure 8: Locality map of Harare on the Upper Manyame Sub-Catchment (Misi *et al.,* 2018).**

The water table over the granite depends on the available groundwater which relies on rainfall (Broderick, 2012; Dorner & Kasanga, 2014). However, the high frequency of droughts in the CoH has resulted in severely depleted levels of groundwater (Dorner & Kasanga, 2014). Climate extreme events such as droughts and heat waves have been projected for the city in the future (Mahachi, 2012; Kim *et al.*, 2016; Nhamo & Mabhaudhi, 2019). Rainfall levels have decreased in the area (Figure 9), and with such a high population, the water demand has already started to outweigh its supply (Mubaya & Mafongoya, 2017). Additionally, drought risk models for Zimbabwe (CoH included) show an increasing drought risk profile between 1980 and 2100 (Frischen *et al.*, 2020). The increase in private boreholes in the northern suburbs between the years 2007 and 2011 in response to irregular municipal water supply, contributed towards 15 830 boreholes identified in the CoH in 2014 (Misi *et al.,* 2018; Nhapi, 2019). Consequently, there has been a massive drawdown of the water table and groundwater shortages were experienced in boreholes set in shallow and fractured ground profiles (Misi *et al.,* 2018; Nhapi, 2019). High pollution due to poor waste management has led to decreased levels of groundwater portability which has contributed to the CoH having two cholera and typhoid epidemics in 2008 and 2018.

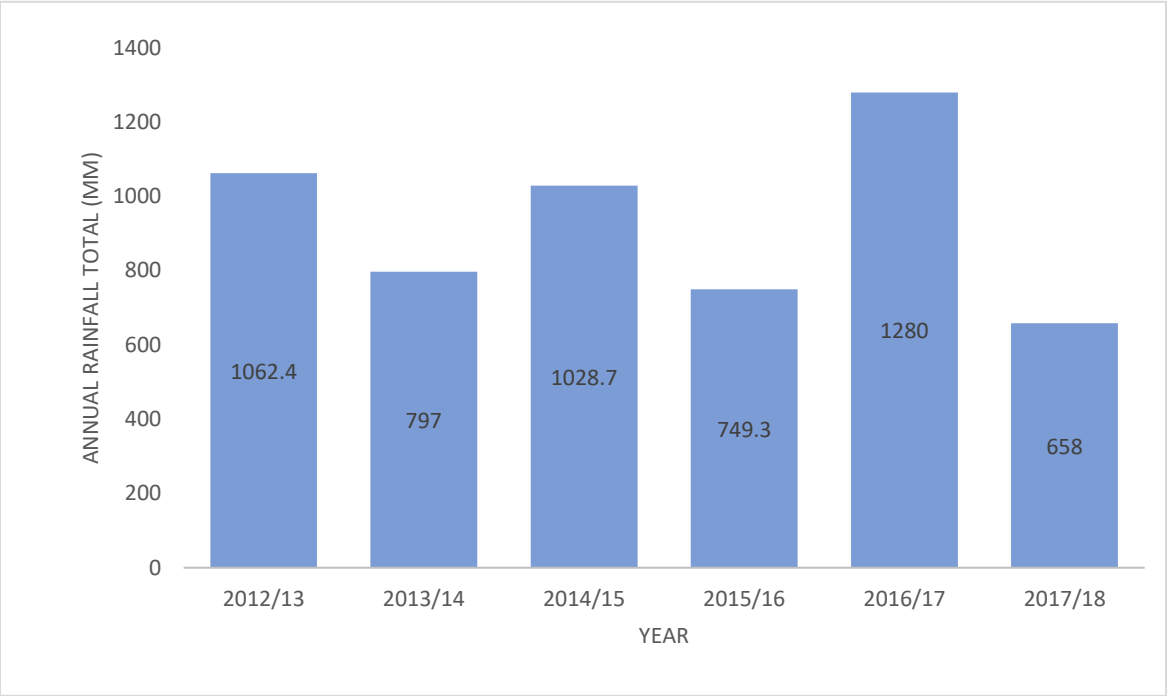


**Figure 9: Average and total annual rainfall in the CoH from 2012 to 2018 (CoH, 2018).**

## 4.4. A local governance perspective

Harare falls under the administrative body of the Harare City Council (HCC), which is responsible for service delivery within the city. The HCC is also responsible for the treatment and supply of water and water quality management in the city. However, not only are water cuts a norm in the city, there is close to 60% of non-revenue water that goes unaccounted for due to leakages in dilapidated infrastructure (Dorner & Kasanga, 2014). The HCC has been criticised over the years due to issues associated with ineffective prioritisation of resources and failure to provide clean water to residents (Nhapi, 2019). This HCC is dominated by officials in the opposition party. This adds to another challenge within the governance of the CoH as there is the potential for "…*political interference at the expense of efficiency, effectiveness, and transparency in service provision*" when it comes to working with other parastatals (Nhapi, 2009, p. 231). The HCC is plagued with problems of corruption and eroding governance. Challenges such as shopping malls and taxi ranks being built on wetlands have highlighted poor wetlands management strategies and disregard for the Environmental Impact Assessments (EIAs) which forbid developing on wetlands (ICLEI, 2018).

## 4.5. Disaster and drought risk management strategies and policies

The Government of Zimbabwe (GoZ), through the Civil Protection Act (CPA) of 1989 mandated disaster coordination, planning, and response to the Department of Civil Protection (DCP) which is within the Ministry of Local Government, Public Works and National Housing at national level (Mavhura, 2016; GoZ, 2019). To ensure disaster preparedness, the DCP formed the Civil Protection Organisation. This is a multi-sectoral forum that is, "*to provide advice and coordination of national DRR efforts as well as making recommendations to the DCP on risk reduction"* (Mavhura, 2016, p. 615) (Figure 10). The DCP operates at provincial and district levels through civil protection units. However, while the DCP has such a huge mandate, it does not have convening power with other Ministerial Offices and lacks resources as well as an emergency operations centre, which limits its effectiveness in disaster response (GoZ, 2019). The framework suggests a very collaborative approach to disaster management and includes the involvement of various stakeholders including private sector and NGOs in disaster management.

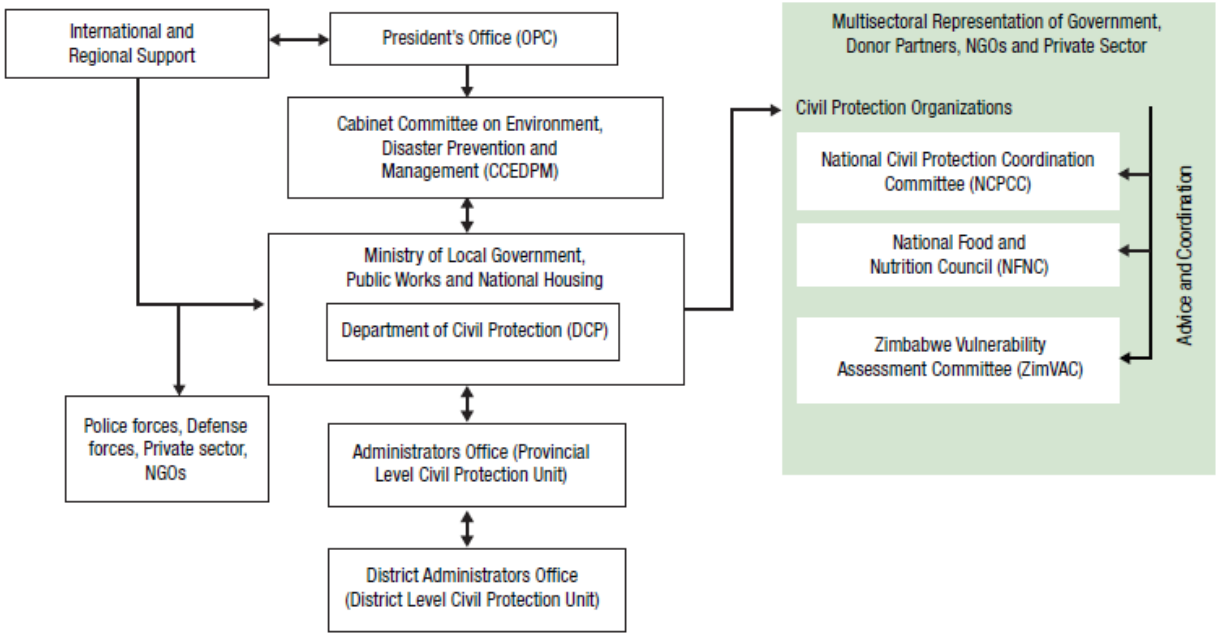


**Figure 10: Disaster Risk Management framework for the CoH, Zimbabwe (GoZ, 2019).**

Since the year 2012, the CPA has been accommodating for civil protection and emergency management. The Disaster Risk Management Bill (in draft) will aim to fill the gaps in DRR, preparedness, and risk financing (GoZ, 2019). The DRM for hydrometeorological disasters is

managed by the CPA, the Zimbabwe National Water Act (ZINWA), the Meteorological Services Act of 2003, and the Draft Disaster Risk Management Bill. Although the country does not have a Disaster Risk Management Policy, strengthening of DRM has been done through incorporating DRR in the National Climate Policy, the National Climate Change Response Strategy (NCCRS), the National Contingency Plan, the Disaster Risk Management Strategic Plan, and the National Policy and Program for Drought Mitigation (Table 4).

**Table 4: Disaster management strategies in the CoH, Zimbabwe (Adapted from GoZ, 2019)**

| **Disaster management strategies** | **Key provisions** |
|---|---|
| National Climate Policy (2016) | Seeks to reduce vulnerability to climate change and variability and strengthen adaptive capacity in key economic sectors such as health, water, agriculture, forestry, and biodiversity. |
| National Climate Change Response Strategy (NCCRS) (2015) | Has specific provisions for dealing with climate change issues, understanding the extent of the threat, and putting in place specific actions to manage potential impacts |
| Zimbabwe National Contingency Plan | Prioritises the key hazards and informs the disaster preparedness processes of the government |
| Disaster Risk Management Strategic Plan 2016-2020 | Looks at the institutional capacity of the National Civil Protection Committee to mitigate, prepare for, respond to, and help the country recover from disasters. |
| National Policy and Programme for Drought Mitigation | Recognises the effects of drought on rural communities and encourages strategies that aid communities in adapting to climate change. |

Drought response in the country is a mandate of the National Food and Nutrition Council (Figure 10) and the policy that explicitly deals with drought, i.e., the National Policy and Programme for Drought Mitigation. Both these have an agricultural and rural focus, which points towards drought still being conceptualised as a rural issue in Zimbabwe and could result in gaps in the implementation of drought response activities in cities as no policy guides that.

# Chapter 5: Study design and methods

## 5.1. Qualitative study design

I followed a qualitative research approach, which is a type of research that relies on the use of textual data as empirical evidence instead of numbers (Flick, 2011; Punch, 2014; Sale & Thielke, 2018). I chose this study design due to the type of information that I required to fully understand the cross-sector collaborations that were occurring in the CoH, which numerical data were not going to sufficiently explore. Qualitative approaches allow for a contextual understanding of processes through acquiring information from individuals with direct and first-hand experience of the research topic of interest (Castleberry & Nolen, 2018; Sale & Thielke, 2018). Additionally, qualitative research is effective in ensuring the collection of information that is rich in meaning and allows for the exploration of processes through the lenses of different stakeholders (Bryman, 2015; Castleberry & Nolen, 2018).

## 5.2. Selection of key informant participants and collaborations

I employed a multi-stage approach to selecting participants using two non-probability sampling techniques, purposive sampling, and linear snowball sampling. Purposive sampling involves making use of judgement to select participants based on their knowledge, experience and skill (Bryman, 2015). It seeks to identify key informants that will be able to effectively provide information necessary for the study (Bryman, 2015). Linear snowball sampling is a method in which initial participants refer the researcher to other possible participants who may be familiar with the topic but are not in the initial sampling frame (Braun & Clarke, 2013; Bryman, 2015). It allows for the identification of other key stakeholders that would not have been identified through the purposive sampling procedure. In the context of this study, the relevant population consisted of organisations in different sectors (national and local government, CSO, and NGO) operating in the city. In particular, I was interested in interviewing key individuals from those organisations that were involved in responding to drought issues, especially those who were collaborating in response to drought events.

### 5.2.1. Identifying organisations and departments

To understand who the likely stakeholders to interview were, I familiarised myself with the context of the CoH from three perspectives (Table 9). Firstly, I reviewed policy and strategy documents concerned with drought and DRM in the city. The documents reviewed include the, i) CPA, ii) Zimbabwe National Climate Change Strategy (NCCS), iii) Zimbabwe Climate Policy, iv) Zimbabwe

National Contingency Plan, and v) National Policy and Program for Drought Mitigation. This was to identify the key informants who had the mandate to respond to drought as a starting point.

Secondly, I reviewed accredited local newspaper articles online such as The Herald and The Guardian. I systematically searched for keywords such as: *'drought in Harare', 'drought response in Harare', 'drought disaster in Harare' 'collaboration in Harare', 'collaboration and drought in Harare', 'cross-sector response in Harare', 'cross-sector collaboration in Harare',* and *'cross-sector collaboration in response to drought in Harare'*. I expanded the years to include the previous drought seasons '2016-2017', as a starting point to identify those organisations that had collaborated before and then went on to recent articles. Within the newspaper articles, I aimed to identify organisations that had been interviewed with regards to drought response. In total, 22 newspaper articles were reviewed. Furthermore, I performed a Google search for CSOs and NGOs in the CoH. I went through their websites and social media accounts to read their mission statements and get a sense of their work in the city's response to drought. I then shortlisted relevant organisations.

Finally, I was able to use non-academic resources such as project reports on previous projects at ICLEI Africa which had identified key stakeholders operating in the city in various sectors. In addition to this grey literature, I also made use of past interviews conducted by ICLEI Africa staff on climate resilient development to further identify possible participants. Furthermore, I made use of ICLEI Africa's focal points in the CoH as they were able to give first-hand information on the organisations collaborating in response to drought in the city (this contributed towards the initial linear snowballing process).

### 5.2.2. Shortlisting key informants and collaborations

Initially, I identified 17 possible participants for the study who were part of cross-sector collaborations that could be related to drought response. Of these participants, five stakeholders were from government departments (2 in national government and 3 in local government), eight from CSOs, and four from NGOs. After shortlisting these potential participants, I contacted them via telephone to further understand their scope of work and if they were members of past or current collaborations responding to drought in the CoH. Thereafter, I narrowed down the list based on the following criteria (Table 9):

i) the individual had to be part of a collaboration responding to drought or contributing to a response to drought in the city,
ii) the individual needed to have been part of a collaboration long enough to answer questions about the collaboration, and
iii) the individual needed to be available, willing, and able to answer questions relating to my study.

I was interested in collaborations that were responding to or contributing to drought response in the CoH. I used the criteria below for the selection of cross-sector collaborations that would be used for this study. Thereafter, I shortlisted only the participants that were in collaborations that fulfilled the criteria for interview invitations.

i) the collaboration had to be responding to drought or contributing to a response to drought in the city,
ii) the collaboration needed to have started either before or during the drought, and
iii) the collaboration needed to have representation from various sectors.

As part of the invitation process, I developed an information sheet that outlined the aims and objectives of the research and the type of information I would require for the study (Appendix 5A). This was to ensure that the interviewee would better prepare the information and acquire relevant documentation before the interview. I sent invitations via email to the eight shortlisted officials in different sectors. After the first interview stage (Section 5.4), I used the linear snowball method to invite at least three known members of the identified collaboration. Due to the difficulty in contacting organisations through telephone and emails in the CoH, I adapted the second data collection phase to include in-person invitations to the study.

## 5.3. Strategic design of interview guide

Interviews are considered purposeful conversations (Berg, 2009) with the specific aim of obtaining data for a given topic under study (Bryman, 2015). Semi-structured interviews are the most commonly used method in qualitative studies (Punch, 2014). They are loosely structured, flexible (Berg, 2009; Bryman, 2015), and "… *the researcher has prepared an interview guide before the interview but does not rigidly adhere to it, either in terms of the precise wording of questions, or the order in which the questions are asked"* (Braun & Clarke, 2013, p. 78). This will allow for other themes to present themselves through the conversation and follow up questioning for richer data (Bryman, 2015).

For this study, I strategically developed questions around the objectives and these questions were guided by the analytical frameworks that I would use in the analysis of the information in transcripts. I also made room to explore further themes emerging from the interview as these would inform the inductive analysis part of the study. For example, to understand the nature, drivers, and processes of the collaborations (objective 1); I designed the interview questions following the 'initial conditions', 'processes', and 'structure and governance' components of Bryson et al. (2006) framework to understand cross-sector collaborations (Figure 6 in Section 3.1.) Table 5 below shows a section of the interview guide and the purpose of the questions concerning the study. The full table is in Appendix 5B.

**Table 5: A section of the semi-structured interview guide (full table in Appendix 5B).**

| Question | Contribution to the study |
|---|---|
| What motivated the start of this cross-sector collaboration?<br><br>- What led to the formation of this collaboration?<br>- What issues were/are you trying to address through this collaboration?<br>- As an organisation do you feel capacitated to be part of this collaboration.<br>- As an organisation, what would you like to get from the collaboration? | • To identify conditions under which organisations in different sectors are choosing to collaborate with other organisations.<br><br>• To identify the issues around which organisations in different sectors are collaborating.<br><br>[Objective 1- to understand the nature, drivers and processes of cross-sector collaborations] |

## 5.4. Semi-structured interview process

I conducted a total of 25 in-depth semi-structured interviews (Table 6) with 14 key informants in English. The interviews were conducted during two data collection trips in May 2019 and October – November 2019 (Table 9) at the work premises of the interviewees and lasted between 45 mins to 1hr 30 mins each. The interviews were also audio-recorded with permission from interviewees (see section 5.5 for ethical considerations). The uneven distribution of interviews to interviewees is because some key informants were involved in multiple cross-sector collaborations, hence multiple interviews were conducted with the same interviewee (Table 6). In some instances in which more than one individual in an organisation attended the collaboration, interviews were held with both key informants as a group. Due to the limited time I had in the city, follow up interviews were arranged to be conducted telephonically within two weeks of completing interview transcription.

However, the response rate with telephonic follow-up interviews were very low. For the first trip, only three out of six follow up interviews were successful and for the second data collection trip, only 4 out of 13 were successful.

## 5.5. Ethical considerations

Before conducting interviews for this research, I received ethical clearance from the ethics committee in the Science Faculty at the University of Cape Town (ethics code: FSREC 35 - 2019). Following the ethics requirements, I developed a consent form (Appendix 5C) which included a brief description of the project and asked for consent to make use of the information provided for academic reasons. The consent form also asked for permission to audio record the interviews for later transcription. To maintain anonymity of the participants, I outlined that a code will be assigned to them based on their sector and order of interview as outlined in Table 6 below (interview reference). Before each interview, I verbally asked for consent in addition to the consent form and clarified aspects of the consent form that was likely to be misunderstood. I assured the participants of their right to revoke consent of either at any point during the interview and some did so.

**Table 6: Randomly assigned codes given to interviewees to maintain anonymity following ethical considerations and the frequency of interviews conducted with the interviewees**

| Interviewee reference | Interviewee sector | Number of collaborations in which interviewee was involved in (out of 8) | Number of in-depth interviews conducted |
|---|---|---|---|
| **NG01** | National Government | 1 | 1 |
| **NG02** | National Government | 1 | 1 |
| **NG03** | National Government | 2 | 2 |
| **LG01** | Local Government | 3 | 4 |
| **LG02** | Local Government | 2 | 1 |
| **LG03** | Local Government | 2 | 1 |
| **CS01** | CSO | 2 | 1 |
| **CS02** | CSO | 2 | 3 |
| **CS03** | CSO | 2 | 2 |
| **CS04** | CSO | 1 | 1 |
| **CS05** | CSO | 1 | 1 |
| **CS06** | CSO | 2 | 2 |
| **CS07** | CSO | 2 | 2 |
| **DP01** | NGO | 2 | 1 |
| **DP02** | NGO | 2 | 1 |
| **DP03** | NGO | 1 | 1 |

## 5.6. Qualitative data analysis

Qualitative analysis involves the extensive exploration of qualitative data to derive patterns, relationships, associations, and meaning from the data (Babbie, 2007). Although data analysis methods differ based on the research, analysis methods usually follow a procedure of organising the data, reducing the data through developing codes, and the identification of patterns. In qualitative data analysis, a theme defines a certain pattern identified in the data from different codes (Clarke & Braun, 2013; Maguire & Delahunt, 2017; Nowell *et al.,* 2017), while a code is a general label given to a section of text to identify focus areas of the data (Miles *et al.,* 2014; Nowell *et al.,* 2017).

### 5.6.1. Transcription of semi-structured interviews

Transcription is a process of transferring audio, video, and visual data into written text (Davidson & Australia, 2009; Kowal & O'Connell, 2014). Although transcription usually falls short of providing a true representation of the actual interview (Kowal & O'Connell, 2014), it is still the most crucial in making sense of the data provided by the interviewees. In the study, I transcribed audio recordings from the interviews in three different steps, i.e. familiarisation (through listening to the audio), transcript development, and review of the generated transcript.

### 5.6.2. Coding and thematic analysis

Thematic analysis is a process whereby the researcher assigns codes to sections of the data to organise and group them into different themes that are relevant to the research topic (Braun & Clarke, 2013; Nowell *et al.,* 2017). The thematic analysis includes the processes of identifying these codes and themes (Braun & Clarke, 2013). Thematic analysis ensures effective communication of findings to people from various research backgrounds (Boyatzis, 1998; Braun & Clarke, 2013; Nowell *et al.,* 2017). The thematic analysis procedure I followed included both the inductive approach and a deductive approach. I chose to apply both inductive and deductive analysis because inductive analysis allows for the identification of significant themes inherent in the raw data which allows for more context-based findings and explanations (Bryman, 2015). On the other hand, deductive analysis allows to test if and how pre-defined themes from the literature will apply in a different setting (Bryman, 2015).

### 5.6.3. Deductive analysis: Nature, drivers, and processes of collaborations in the CoH

My first objective was to identify the nature, drivers, and processes of cross-sector collaborations occurring in the CoH in response to drought. I had developed the interview transcript following the 'initial conditions', 'processes', and 'structure and governance' components of Bryson et al. (2006) (Section 5.3). I followed a standardised approach in analysing the transcript in NVivo software using the updated propositions from Bryson et al. (2015) framework to understand cross-sector collaborations (Appendix 3A). In NVivo, I followed the procedure in which I searched the data for themes recorded in a particular proposition, Table 7 shows an example with the analysis using Proposition 1 under the 'initial conditions' component of the framework.

**Table 7: Example of how propositions were used in the analysis of cross-sector collaborations in NVivo software - highlighted portions are themes used to frame results later in chapter 6**

| Proposition | Process followed for each collaboration in NVivo Software |
|---|---|
| Proposition 1: Cross-sector collaborations are more likely to form in turbulent environments. In particular, the formation and sustainability of cross-sector collaborations will be affected by driving and constraining forces in their competitive and institutional environments, including political forces and the availability of relevant technology. | • Searched for evidence of turbulence in the environment leading to the formation or sustainability of the cross-sector collaboration.<br>• Searched for any driving and constraining forces that were present in the collaborations.<br>• Identified which category these fell into and grouped them. |

### 5.6.4. Deductive analysis: barriers and enablers to collaboration in the CoH

My second objective had to do with identifying the barriers and enablers influencing cross-sector collaborations occurring in the CoH in response to drought. I made use of the typology for barriers and enablers developed in Chapter 3 and searched for various concepts as shown in the example in Table 8. I noted when these themes deviated from the way that they have manifested in literature as part of the inductive process.

**Table 8: Example of deductive analysis for the barriers and enablers using priori codes**

| **Barriers to collaborations** | | |
|---|---|---|
| **Theme** | **Sub-theme** | **Concepts in literature** |
| **Organisational barriers** | Differences in organisational ideologies | ▪ Searched for evidence of how different ideologies and missions, cultures affected collaborations<br>▪ Searched for organisational self-interests that impacted the collaborations<br>▪ Searched for the influence of hierarchical nature of other sectors on collaborations |
| **Enablers to collaborations** | | |
| **Theme** | **Sub-theme** | **Concepts in literature** |
| **Comprehensive planning** | Common vision | ▪ Searched for evidence that the presence of one or more linking mechanisms influenced the start and execution of collaborations positively<br>▪ Searched for how general agreement on the problem (including agreeing on initial aims) helped with starting and execution of the collaboration |

### 5.6.5. Letting the data speak: inductive analysis

For the inductive analysis, I followed a thematic analysis of themes that were emerging from the data which did not form part of the prior developed framework. Since emergent themes were not defined as those in the deductive analysis, the process of coding was conducted as following general thematic analysis as described in section 5.6.2. above, including:

- Identifying emergent themes in transcripts (including when a theme was recorded in priori themes but differed in the nature in which they manifested in the context of the study)
- Describing the identified themes; and
- Reviewing and defining them in the context within which they appear

### 5.6.6. Assessing the contribution of cross-sector collaborations to the four priorities of the Sendai Framework

As stated previously (Chapter 2), the Sendai Framework emphasises four priority areas for DRR and lists activities that need to be carried out at various levels to fulfil these priority areas. In a spreadsheet, I listed the local and national level activities under each priority area (Appendix 5D). I then assessed the contributions of my cross-sector collaborations to these activities by counting the number of contributing factors supporting each of the activities (Figure 11). Based on the total overall number of contributing factors per activity from all collaborations, I classified the contribution levels as substantial, partial, or none. Substantial contribution referred to cases where an activity had multiple contributing factors across all collaborations. Partial contribution referred to cases where the activity had few contributing factors, and none where collaborations were not fulfilling the activity at all. I also considered the key barriers blocking the ability of the collaborations to effectively contribute to the Sendai Framework activities. These are discussed in the synthesis chapter (Chapter 8). Figure 11 below shows a section of the analysis spreadsheet with an example of how each collaboration contributed to three activities under Priority 4, and how they were classified.

## 5.7. Limitations of study

The data collected in this study came from two visits to the CoH and further remote follow-up. I faced challenges getting hold of participants telephonically and via email. Additionally, while I might have wanted to interview every member of the identified collaborations, it was not possible due to time constraints and most of them being unavailable for both telephonic and physical interviews. I interviewed only the people that were available for interviewing which meant that other key

stakeholders could not be interviewed. Furthermore, telephonic follow up interviews were not an all-around success, resulting in very few follow-up interviews than I had planned to do. Conducting a study in a politically polarised environment such as the CoH meant that some issues may not have been reported as they have been viewed as political. Some participants refused audio recording, within their rights, however, they agreed to their information being used in the study.

Some data collection methods that would have been used to triangulate the study such as focus group discussions and observations were not possible due to changing schedules, time constraints, and most collaborations occurring via social media. Because the collaborations that I investigated were still ongoing, the 'outcome and accountabilities' component of Bryson et al. (2006) framework could not be applied in this study. Because most cross-sector collaborations in the CoH were not designed primarily for drought response or to explicitly fulfil activities under priority areas of the Sendai Framework, the reflection of the contribution of cross-sector collaborations was based on collaborations that had not set out to contribute towards DRR. This may influence the overall outcome in terms of the contribution to DRR as most activities under priority areas were out of scope with the activities the collaborations were carrying out on the ground.

| Activity (Priority 4) | Water strategy development | Drought resilience programme | Water advocacy and water point committees | Potable water by 2020 and water task force teams | Alternative water supply programme | Maize and cash distribution to communities | Wetlands utilisation guideline development | Wetlands conservation and environmental education | Comment and contribution<br>Orange = Partial<br>Green = Substantial<br>Red = None |
|---|---|---|---|---|---|---|---|---|---|
| *(a) To prepare or review and periodically update disaster preparedness and contingency, policies, plans and programmes with the involvement of the relevant institutions, considering climate change scenarios and their impact on disaster risk, and facilitating, as appropriate, the participation of all sectors and relevant stakeholders;* | •Involvement of relevant institutions in developing plan to ensure the continual provision of water<br>•Water strategy document reviewed every 5 years | No component of the collaboration fulfilled this activity | No component of the collaboration fulfilled this activity | •Water taskforce teams were to strengthen response in the water sector<br><br>*Barriers in negotiating leadership status meant that CSOs were not involved in taskforce teams* | No component of the collaboration fulfilled this activity | No component of the collaboration fulfilled this activity | •Preparation of a guideline document on wetlands use<br>•Involved relevant stakeholders in the development of guideline<br><br>*Voices of CSOs not taken into acccount, other community members not represented* | No component of the collaboration fulfilled this activity | Collaborations contributed to this activity directly and indirectly through:<br>•Involving relevant stakeholders in the development and review of plans (2)<br>•Reviewing strategy documents and guidelines (1)<br>•Strengthening response in the water sector 1 |
| *(c) To promote the resilience of new and existing critical infrastructure, including water, transportation and telecommunications infrastructure, educational facilities, hospitals and other health facilities, to ensure that they remain safe, effective and operational during and after disasters in order to provide live-saving and essential services;* | •Monitoring of water infrastructure by community members as part of CSOs<br>•Using social media to report broken infrastructure for repairs | •Increasing and maintenance of boreholes<br>•Use of the u-reporting tool to report broken infrastructure for repair<br>• Community water point committees to guard against vandalism of boreholes<br>*Mobile population* | •Increasing and maintenance of boreholes<br>•Community water point committees to guard against vandalism of water infrastructure<br>•Using social media to report broken infrastructure<br><br>*Slow response rate on social media* | •Monitoring of water infrastructure by community members as part of CSOs<br>•Using social media to report broken infrastructure for repair | •Sank new boreholes to increase the number of boreholes in communities<br><br>*Political interference when identifying sites to sink boreholes* | No component of the collaboration fulfilled this activity | •Development of guideline to promote resilience of wetlands<br><br>*Political influence in EIA procedures* | •Community stewardship of wetlands<br><br>*Politcal interference in issuing of building permits* | Most of the collaborations contributed towards this activity through:<br>•Monitoring water infrastructure (6)<br>•using social media and u-reporting tool to report broken infrastructure for repair (4)<br>•Using water point communities to guard against vandalism (4)<br>•Diversifying boreholes (1)<br>•Stewardship of wetlands (2) |
| *(d) To establish community centres for the promotion of public awareness and the stockpiling of necessary materials to implement rescue and relief activities;* | No component of the collaboration fulfilled this activity | No component of the collaboration fulfilled this activity | No component of the collaboration fulfilled this activity | No component of the collaboration fulfilled this activity | No component of the collaboration fulfilled this activity | No component of the collaboration fulfilled this activity | No component of the collaboration fulfilled this activity | No component of the collaboration fulfilled this activity | None of the collaborations had components that fulfilled this activity |

**Figure 11: Section from the spreadsheet with example of the assessment of the contributing factors**

**Table 9: Summary of methods**

| **Stage 1**<br>**Getting to know the context of the city**<br><br>**(Section 5.2.1)** | **Stage 2:**<br>**Sampling participants and collaborations**<br><br>**(Section 5.2.2)** | **Stage 3:**<br>**Interviews**<br><br>**(Section 5.4)** | **Stage 4:**<br>**Data Analysis**<br><br>**(Section 5.6.3, 5.6.4 &, 5.6.6)** |
|---|---|---|---|
| **Document review:**<br>- The Civil Protection Act<br>- Zimbabwe National Climate Change Strategy<br>- Zimbabwe Climate Policy<br>- Zimbabwe National Contingency plan<br>- National Policy and program for drought mitigation | **Sampling (purposive) and snowballing criteria (individuals)**<br>- Expertise on the collaboration<br>- Membership in the collaboration<br>- Time spent as part of the collaboration | **Visit 1:**<br>**In person interviews (May 2019)**<br>- 2 officials in civil society<br>- 2 officials in local government | **Nature and drivers of collaborations:**<br>- Deductive analysis based on the propositions by Bryson et al 2015<br>- Inductive analysis based on emergent themes<br>- Data presented as tables and quotes |
| **Grey material and ICLEI Africa contacts:**<br>- Stakeholder mapping report for Harare<br>- Interview Transcripts from earlier interviews<br>- City focal points from Chinhoyi University of Technology | **Sampling criteria for collaborations**<br>- Responding to or contributing to drought response<br>- Involving various sectors<br>- Collaboration undergoing started before and /or during drought | **Visit 2: In person interviews (October – November 2019)**<br><br>- 5 civil society officials *(1 from visit 1)*<br>- 3 National government<br>- 2 Local government *(both from visit 1)*<br>- 3 non-government officials | **Barriers and enablers to collaboration:**<br>• Deductive analysis using previously developed themes from literature<br>• Inductive analysis based on emergent themes<br>• Data presented as tables and quotes |
| **Newspaper Articles scheme:**<br>- Relief-web<br>- The Herald<br>- The guardian<br>- Reuters<br>- News24 | **Invitations:**<br>- Visit 1 – 8 participants<br><br>- Visit 2 - 13 participants (*in person invitations high response rate*) | **Interviews: follow ups telephone *(low response rate)***<br>- After visit 1: 3 of 6 requested<br><br>- After visit 2: 4 of 13 requested | **Contribution to activities under the Sendai Framework:**<br>• Assessment based on the activities listed under each priority in the Sendai Framework<br>• Assessment based on contributing factors |

# Chapter 6: Results

# Cross-sector collaborations occurring in the city of Harare in response to drought

## 6.1. Nature of cross-sector collaborations in response to drought in the CoH

### 6.1.1. Categories of cross-sector collaborations

I identified eight cross-sector collaborations contributing to drought response and grouped them into three categories based on their focus areas, i) water delivery and access, ii) food security, and iii) wetlands management (Figure 12). Most (5) of the cross-sector collaborations were in the water delivery and access category, followed by those in wetlands management (2), and finally the one in the food security category (1).

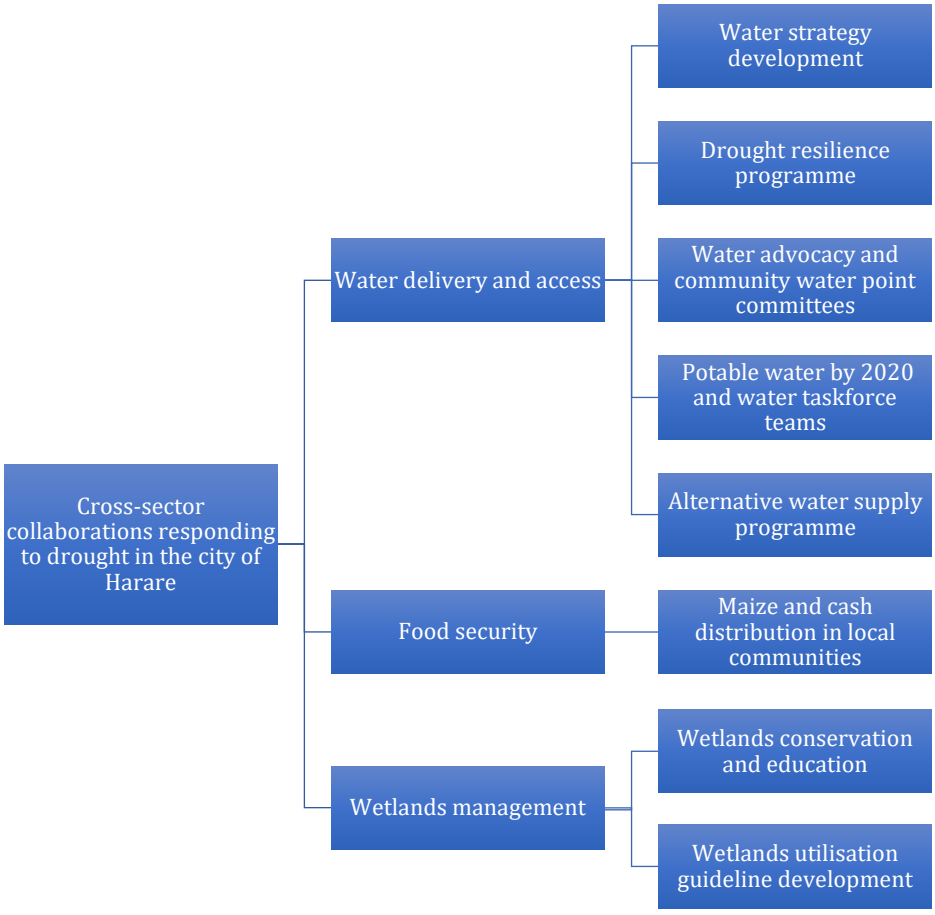


**Figure 12: Categories of cross-sector collaborations responding to drought in the CoH.**

#### 6.1.1.1. Brief descriptions of cross-sector collaborations

Table 10 below provides brief descriptions of the collaborations identified in the CoH that were contributing to drought response. Most (6) collaborations had a community arm working in local communities. Collaborations in the CoH had a combination of sectors with all collaborations having three or more sectors involved. Collaborations in the water access and delivery category were conducting similar activities in local communities, with some operating in the same areas.

**Table 10: Nature of cross-sector collaborations in response to drought in the CoH.**

| Collaboration | Brief description |
|---|---|
| **Water delivery and access** | |
|  **Water strategy development** (2017- current) | The collaboration aimed at developing the water strategy document for the years 2018-2021 in the CoH. The collaboration included the process of developing the strategy and the continuous monitoring and evaluation of its implementation in the city. Led by the Department of Water in the CoH (Harare water), the collaboration included CSOs (4), national government and local government (2). |
|  **Drought resilience programme** (2019-2020) | This collaborative pilot project on urban resilience started in July 2019 and ended in February 2020. The collaboration aimed to promote income-generating activities in communities through health clubs. It included the installation of piped water systems to improve access to clean and safe water. The collaboration also aimed at capacitating people in communities and local government officials on the use of the U-reporting tool, (a free SMS tool that enables community participation and social monitoring of water infrastructure and sewage management). The collaboration members included local government departments (3), NGOs (3), and local communities (2). |

| Collaboration | Brief description |
|---|---|
|  <br>**Water advocacy and water point committees**<br>(2008-current) | The water advocacy collaborative initiative started during the 2008 cholera outbreak in the CoH. The initial collaboration identified water point committees after boreholes had been sunk in high-density suburbs. The role of the water point committees was to monitor water points to protect against vandalism and manage conflict. The collaboration then evolved into lobbying for issues to do with water and access to clean and safe water. Membership of the collaboration included local government departments (1), CSOs (2), ward councillors, communities, NGOs (mainly as funders), and faith-based organisations. |
|  <br>**Potable water by 2020 and water task force teams**<br>(2018-2019) | The collaboration started as a project output for the 'potable water by 2020' project lead by a CSO. The initial water conference took place in January 2018 to ensure that the CoH would have enough quantity and quality water following a projected drought season. The collaboration aimed at addressing issues of coordination that was lacking between partners working in water issues in the country. The outcome of the conference were water task force meetings that were to consist of national and local government departments, CSOs private companies, and academia. The collaboration also had community level collaborations in high-density suburbs. |
|  <br>**Alternative water supply programme**<br>(2008 – 2019) | The collaboration started during the cholera outbreak in 2008 and was concerned with increasing water access through alternative water supply in high-density suburbs through sinking boreholes. Various members of the collaboration from local government departments, private companies, faith-based organisations, ward-based organisations, and NGOs were involved. Donors and sponsors collaborated as silent partners. The collaboration had two arms, a community collaboration on the ground in different wards and one between organisation representatives. |

| Collaboration | Brief description |
|---|---|
| **Food security** | |
|  **Maize and cash distribution to communities** (2019-current) | The collaboration was activated in March of 2019 and it involved the distribution of maize to vulnerable populations in the greater Harare area. In addition, monetary relief was also provided through the collaboration. Spear headed by the DCP, the collaboration consists of various Ministries (4), NGOs (3), local government departments, security forces, and ward workers at community levels. Two levels of collaboration exist with the collaboration occurring within the drought relief committee and within communities. |
| **Wetlands management** | |
|  **Wetlands utilisation guideline development** (2017-2019) | The collaborative initiative started in 2017 and aimed to develop a holistic guideline to wetlands use and to standardise decision making processes to avoid development activities on wetlands. In addition to the various partners in academia, CSOs, national and local government officials, 20 consultants were included and grouped based on thematic areas (legal, land use planning, ecological, social, and modelling groups). Other consultants were added in development, real estate, and architectural fields along the way. The collaboration did not have an arm operating in local communities, rather communities were represented by CSOs. |
|  **Wetlands conservation and environmental education** (2008- current) | The collaboration on wetlands conservation started in 2008 and involves civil societies and communities working with the local government in collaborative conservation of wetlands in the CoH which are threatened by agricultural expansion and urbanisation. The collaboration also includes an environmental education arm and community engagements on the importance of wetland conservation. |

### 6.1.2. Strategic purposes of collaborations

I classified the identified cross-sector collaborations into three groups based on their strategic purposes. First was the policy and strategy development group with collaborations whose scope included the development of a policy or strategy. Second was the project-based collaborations group,

whose scope were based on a project with distinct start and end dates. Third was the needs-based collaborations group, whose scope was flexible enough to consider and cater for the needs of the communities (Figure 13). Under the policy and strategy development group were two collaborations, i) the 'Water strategy development', and ii) the 'Wetlands utilisation guideline development'. Under the project-based group were two i) the 'Potable water by 2020 and water taskforce teams', and ii) the 'Drought resilience programme'. Under the needs-based group were four collaborations i) the 'Alternative water supply', ii) the 'Maize and cash distribution', iii) the 'Water advocacy and water point committees', and iv) the 'Wetlands conservation and education'.

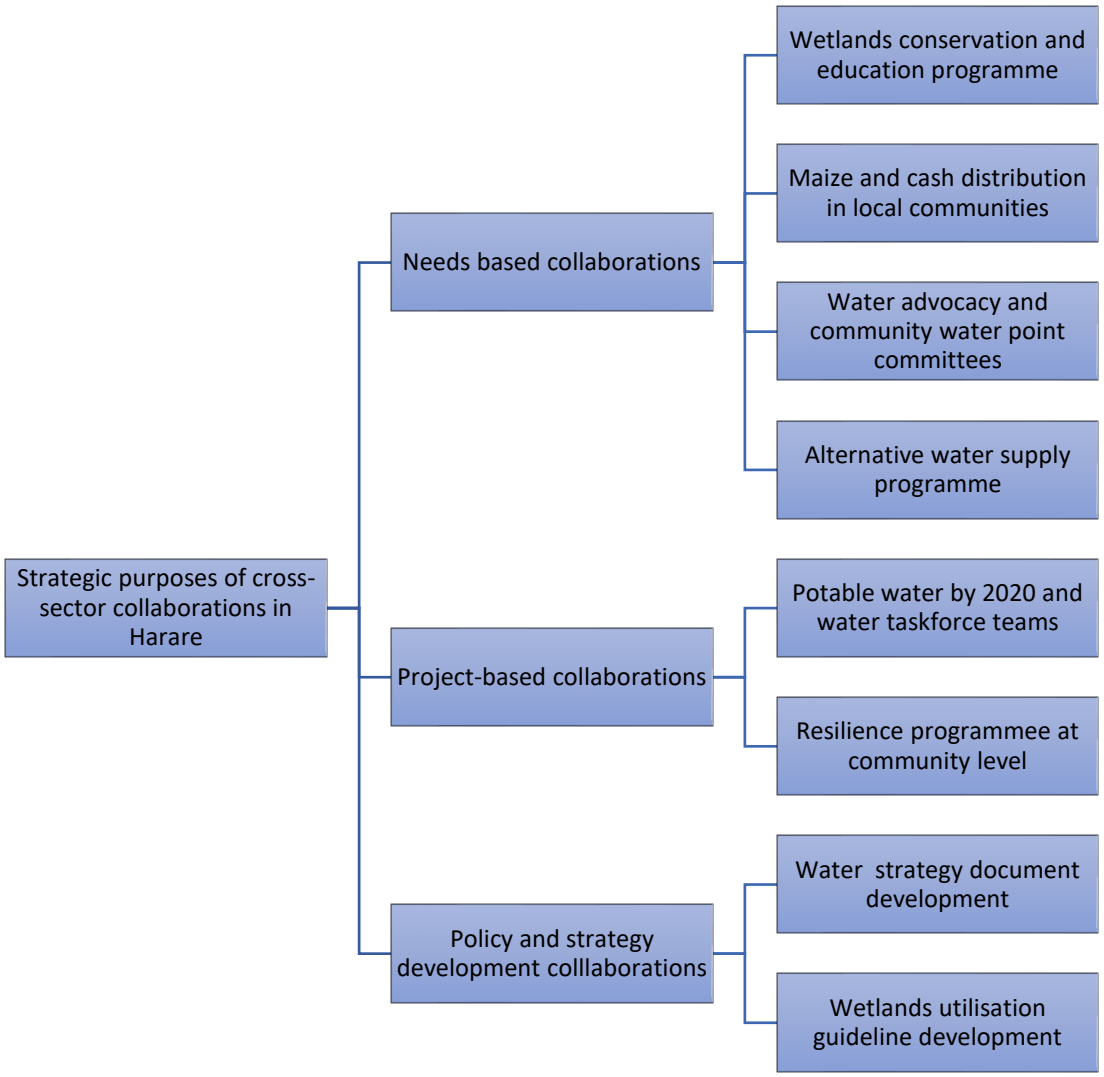


**Figure 13: Three strategic purposes that cross-sector collaborations in Harare fell into**

## 6.2. Drivers of cross-sector collaborations in response to drought in the CoH

I identified three categories of factors driving the formation of cross-sector collaborations responding to drought in the CoH and I related them to the components of the framework (Figure 6 in Chapter 3). The drivers included i) turbulence in the general environment and interrelated issues with overlapping effects, ii) single sector inadequacies and the need for resources, and iii) the presence of linking mechanisms such as a shared understanding of the problem, prior and existing relationships, and presence of conveners.

### 6.2.1. Turbulence in the general environment

Poor water quality and threats of cholera and typhoid epidemics resurfacing in the CoH presented turbulence which drove the collaborations in the water access and delivery category to form. One respondent expressed it as follows, *"We were scared that cholera was going to come back"* (CS03). Another said, "*We do not have adequate water in our lakes, so because of the water cuts, the city of Harare just feel that anytime there might be a reoccurrence of the cholera outbreak"* (LG02). The increased vulnerability to poverty and hunger in the CoH presented turbulence for the collaboration in the food security category. A respondent expressed, *"We are also mobilising more resources to deal with the current issues because you know, as time goes by, hunger will reach a peak, and when it is at its peak, more people will be food insecure"* (NG02). Finally, the rapid infrastructural developments which were occurring on designated wetlands presented the necessary turbulence for the collaborations in the wetlands management category to form. A respondent asserted, *"They (Environmental Management Authority) are handing away wetlands to developers who do not live in the wetlands, they develop them and leave the unfortunate people to swim around in the wetlands with their houses breaking, and lung diseases coming up all year long"* (CS05).

#### 6.2.1.1. Interrelated issues

Only two of eight collaborations were formed with the purpose of drought response as a primary objective (Figure 14). These were the 'Maize and cash distribution' collaboration in various communities, and the 'Drought resilience programme' (refer to Table 10). However, while the 'Maize and cash distribution' collaboration was responding to drought primarily in the CoH, the initiative was previously rural focused, and the urban aspect was fairly new. The collaboration had started in the city in 2018, with one respondent stating, "*It used to be in the rural provinces*" (NG01), but it was also discovered that even "*…in an urban set up, we have plenty of people who are also vulnerable, who are also equally suffering and affected by the effects of drought"* (NG01). Furthermore, these two

collaborations had recently started in the CoH with the 'Drought resilience programme' having started in July 2019 and the 'Maize and cash distribution' collaboration having started in March of 2019.

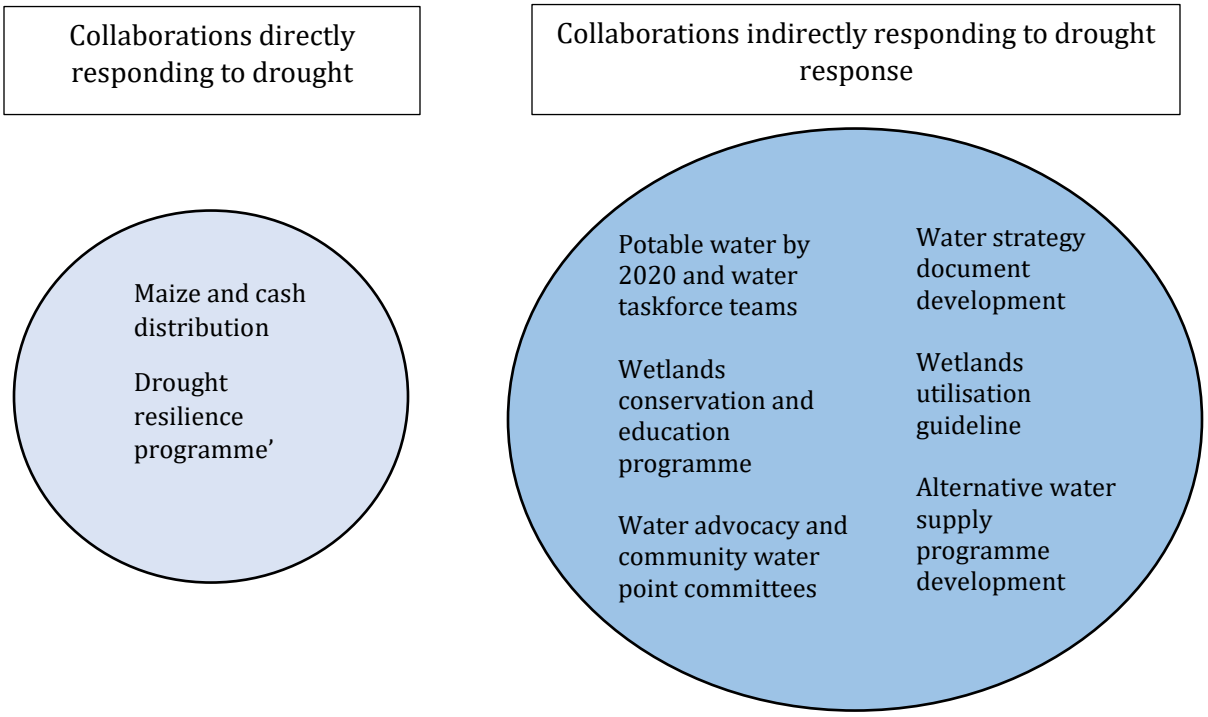


**Figure 14: Cross-sector collaborations responding to drought primarily and those contributing to drought response**

The remaining (6) collaborations that were contributing towards drought response in the CoH were not formed initially for this purpose (Figure 14). However, because drought interacts with and exacerbates the turbulence in the general environment in which all these collaborations formed, these collaborations had components that were contributing to drought response in one way or another. For other collaborations, adding drought response was due to the reality that turbulent issues in the CoH were related and could not be solved in silos with one respondent expressing that, "*These things are linked, and you cannot really extract them too easily"* (DP01). As such, the day-to-day activities and processes of these collaborations contributed towards drought response in the water delivery and access (4) and wetlands management (2) categories (Box 1).

**Box 1: How cross-sector collaborations were contributing to drought response in the water access and delivery category**

"For Harare we have not really been working on drought per se, but I think our interventions have had an impact on increasing the availability of water supply to communities. We have a problem in Harare whereby we were responding to the typhoid outbreak last year. We drilled quite a number of boreholes which are community managed, and these have contributed to improving access to water supply for those communities"-DP02

"In particular with city of Harare, we have been working in Glenview and Budiriro and the intervention has been focused on creating a district water supply network which can be managed to improve continuity of water supply in that zone"- DP02

"In Mbare we have been working on developing piped water networks supplied from yielding boreholes as an alternative source to municipal piped water supply."- DP01

## 6.2.2. Single sector inadequacies and need for resources

### 6.2.2.1. Water access and delivery category

Evidence of sector failure as a prerequisite for the formation of cross-sector collaborations in the water access and delivery category is reflected to an extent due to the failure of the government to respond to turbulence referred to in section 6.2.1. The local government had failed to repair infrastructure which resulted in 60% of piped water being lost in the form of leakages, and abrupt water outages over long periods in the CoH. This inadequacy of the government was at the core of the formation of four out of the five collaborations in the water access and delivery category. One respondent asserted, *"We take water from Lake Chivero and Manyame…it is no longer adequate, and it is dirty so sometimes other areas may go for a week without water, so if these boreholes are adequately positioned then people would get enough water"* (LG02). Single sector inadequacies with regards to the response to cholera and typhoid outbreaks in 2008 and 2018 which were linked to the polluted water, were amongst some of the reasons why most of the collaborations started responding to the issue of water quality and quantity in the CoH. The failure of the water department in the CoH to procure funds for the treatment of water, and the brief closure of the water treatment plant highlights the inadequacies of a single sector to provide clean water from the limited water source. This contributed to the need for funding and expertise to achieve tasks at hand, that would not be available within a single sector. When asked why they chose the option of cross-sector collaboration, three

respondents explicitly referred to the need to leverage external expertise and funds through collaborations (Box 2).

**Box 2: The need to leverage expertise and funding, highlighting single sector inadequacy**

"We are basically looking at efforts of others and different expertise coming on board to address the challenge, we do not have every expertise when it comes to what is required to address the challenge; so we then had to look for different expertise from different actors to ensure that all hands are on deck when it comes addressing the challenge"-CS01

"There is some expertise which can be found from those organisations- so many expertise is within those guys you see, so if you tap from their expertise, we are bound to combat this problem of drought"- NG01

"The lake is now otherwise almost 30 or 40% of water so treating that water it needs a lot of chemicals and it is expensive this is why city of Harare has to introduce water rationing"-LG02

#### 6.2.2.2. Food security category

The issue of single sector inadequacy in the food security category was captured by one respondent who felt that the Ministry of Social Welfare was not coping on its own. Concerning the 'Maize and cash distribution' collaboration a respondent said, "*A drought comes along with vulnerability affecting all ages. If there is hunger people will become vulnerable, and the department of social welfare becomes overwhelmed with such issues"* (NG02). While the collaboration was already underway, single sector inadequacy was highlighted by the need for resources and expertise to add to the limited resources that government ministries were working with. When asked why they involved NGOs in the collaboration one respondent expressed, "*The government alone cannot push this agenda"* (NG01), and another stating, "*We still need to do more, resources permitting; that is why I was talking about developmental partners (NGOs) coming in to assist in other various ways like cash transfers"* (NG02).

#### 6.2.2.3. Wetlands management category

The two collaborations in the wetlands management category began due to the failure of the governing authority to regulate by-laws in the issuing of EIA permits, which were resulting in development on wetlands. Corruption within the city governance highlighted sector failure and hence the need for lobbying and standardised guidelines on wetlands utilisation. Box 3 encompasses

the expression of displeasure by a respondent towards the failure to manage wetlands. Additionally, because there was a need for experts in the development of guidelines, a cross-sectoral approach had to be followed with one respondent stating: *"We needed experts in different sectors to come and give input towards developing holistic guidelines"* (NG03).

**Box 3: Displeasure in the government's wetlands management strategy**

"They were going to put roads that side of the 6 hectares…they were stopped, and then in 2017 they went to the Minister and the Minister overturned EMAs decision and gave an EIA, and then the city gave a permit, so we took them to court and we won the case and they are not allowed to have their EIA or the building permit…but they are appealing to the Supreme Court so the government has no will to look after the environment in Zimbabwe"- CS05

## 6.3. Linking mechanisms

### 6.3.1. Shared understanding and agreement on the problem

Agreement on the problem as a linking mechanism and a driver for collaboration was evident in all five collaborations within the water access and delivery category. For the 'Potable water by 2020 and water taskforce teams' collaboration this was facilitated through informal engagements with potential members having site visits to Lake Chivero, so they could "a*ppreciate the full extent of the problem"* (CS01). Organisations met within their sectors and agreed on the problem at hand so that they may have one voice. This was expressed by one respondent to have, *'help(ed) in shaping the collaboration"* (CS01). For the 'Water advocacy and water point committees', people in communities were already experiencing commotions at water points, hence needed water point committees to manage the sites. In most instances (5), other drivers in the environment had already paved way for the need to collaborate and funding helped the collaborations to occur. One respondent asserted, "*These days there is increased number of cases of people who are fighting at community boreholes"* (CS04); indicating that community members could agree on the problem. The 'Maize and cash distribution' collaboration was guided by the Zimbabwe Vulnerability Assessment Committee (ZimVac) report, which highlighted peoples' vulnerability to food insecurity in the city, thereby making the need for collaboration pertinent.

### 6.3.2. Prior or existing relationships and networks

#### 6.3.2.1. On membership and strategic alliances

Most members of cross-sector collaborations responding to drought had or were current members of other collaborations within their categories in the CoH. For pre-existing collaborations to work as a linking mechanism, they needed to be coupled with other linking mechanisms such as funding. Pre-existing relationships were great at forming strategic alliances to acquire funding for collaborations. For example, when asked if the pre-existing relationships were the linking mechanism for the 'Drought resilience programme', the respondent stated, "*Even if you have a pre-relationship, the donor community usually [put] an advert and you have to bid along with other agencies"* (DP03). Existing civil society networks influenced membership for collaborations that dealt with issues of water and wetlands management. It was easy for organisations in these networks to form and be members of the same collaborations.

#### 6.3.2.2. On building trust

Pre-existing relationships played a bigger role in the perception of trustworthiness of partners in collaborations. For example, with the 'Potable water by 2020 and water taskforce teams' collaboration, the members in CSOs had previously taken the members in national government to court. As such, the perception from national government was that the CSOs were part of the collaboration to obtain sensitive information, limiting the trust between them. One respondent expressed, "*It was the same time that we had legal proceedings against key state actors, they thought we wanted to get information so there was lack of trust from their part in terms of the work that we have done in the past*" (CS01). Where healthy previous work experiences existed, collaborating partners exhibited high levels of trust evidenced by the sharing of sensitive information. A respondent from the 'Water strategy document development' collaboration stated, *"So even when there are no chemicals, at times we can engage these leaders we can tell them the truth. We tell them we are having a challenge with ABCDE, but we need to manage this situation so that we do not cause panic- so that is how good the relationship has been"* (LG03).

#### 6.3.2.3. On building legitimacy

In four of the collaborations that had an arm in local communities, members from CSOs who had a good relationship with people in communities acted as informal leaders in the collaborations in terms of offering advice and guidance on community activities. Since people in communities trusted and had worked with members from these CSOs, this helped in building external legitimacy for the

collaborations as an entity. Internal legitimacy in all eight collaborations was built largely due to members having a shared understanding that their collaborations were going to address a public issue. Additionally, internal legitimacy was also built through the previous working experiences of the members involved and belonging to the same networks in two collaborations.

### 6.3.3. Conveners

While political will was evident in two collaborations, much of what it did was to publicly endorse one collaboration that was already mandated to occur; rather than call for such a collaboration to start. These public endorsements helped with building external legitimacy. The role of mandates as a linking mechanism in the institutional environment was evident in two collaborations, the 'Water strategy document development' collaboration and the 'Wetlands utilisation guideline development' collaborations. For the 'Wetlands utilisation guideline development' collaboration, members had a general understanding of the problem, in that there was a need for standardised guidelines with adequate implementation. However, this agreement on the problem did not act as a linking mechanism to get the collaboration started. Rather, this particular collaboration was mandated by national government to occur and only started in response to the mandate. In essence, mandates from government sectors to collaborate played a convening role in the start of collaborations while political will enhanced collaborations (discussed further in Chapter 7).

## 6.4. Processes and structure of cross-sector collaborations responding to drought in the CoH

### 6.4.1. Overall factors influencing processes of cross-sector collaborations in the CoH

Table 11 below shows different process and overlapping structure components in collaborations responding to drought in the CoH. It highlights factors that influenced the decision-making behind these process and structure components. From the table, we can deduce that skills and expertise influenced the division of labour in collaborations as well as membership selection. Previous collaboration experiences influenced several components (discussed in section 6.3.2 above). The strategic purpose also influenced the processes and structure of collaborations (section 6.4.2).

**Table 11: Components of the process and structure and aspects that influenced them**

| Process and structure component | Factors influencing process (number of collaborations) |
|---|---|
| Membership selection | • Previous work experiences, existing networks helping in sourcing funding hence starting collaborations (5) (see section 6.3.2.)<br>• Strategic purpose (Section 6.4.2) (8)<br>• Skills and expertise based on qualification and expertise (8) |
| Roles and responsibilities | • Based on the skills and expertise through qualifications and experience (8) |
| Structural configurations | • Varied based on strategic purpose (Section 6.4.2) and activities to be carried out (8)<br>• Had formal (8) or informal engagement (6), or both (6)<br>• Made use of social media in between meetings and for monitoring (Section 6.4.3) (6)<br>• Workshops (5)<br>• Formal agreements (Memorandums of Understandings and Terms of References) (4) |
| Governance and conflict management | • Governance varied based on strategic purposes (Section 6.4.2)<br>• Use of indigenous conflict management methods (1)<br>• Increasing number of meetings to address conflict (4)<br>• Use of mediator to avoid conflict (2) |
| Building trust | • Perception of competency through previous collaboration experience and organisations belonging to same networks (5)<br>• Skills and expertise through qualifications and experience (2)<br>• Previous collaborative experiences (negative experiences meant low trust levels) (5) |
| Building legitimacy | • Previous collaborative experience and existing networks (6)<br>• Belief that all involved aimed at addressing a public issue (4)<br>• Public endorsements by politicians (1) (section 6.3.2.) |

## 6.4.2. Influence of strategic purpose on processes

### 6.4.2.1. On membership selection

The strategic purpose of collaborations influenced membership for all eight collaborations, and this further influenced the division of labour. In collaborations within the policy and strategy making group, membership was selected based on the partners qualifications, specifically the level of

expertise and knowledge on the topic around which the collaboration was occurring. The membership structure of the 'Wetlands utilisation guideline development' collaboration changed as more experts were added with one respondent noting, *"We added some consultants that we had missed at the beginning of the collaboration"* (NG03). In some collaborations within the needs-based group, membership was determined following calls for assistance, which meant that membership was flexible. For collaborations in the project-based group, membership was based on the objective of the projects, the skills and expertise of the members and the organisations that bid for the funding.

#### 6.4.2.2. On structural configurations

The influence of strategic purpose on the structural configurations was seen in the 'Water strategy development' and 'Wetlands utilisation guideline development' (policy and strategy making) collaborations. Both had distinct differences in their structure compared to collaborations in the project-based and needs-based groups. These two collaborations were the only ones that did not have activities in and with local communities directly involved. Instead, communities were represented by CSOs at monthly meetings. The structure of collaborations in project-based and needs-based groups were similar in that they had activities occurring at multiple levels. These included collaborations between organisations, which took a more formal approach, and collaborations with communities that took a more flexible approach and used various forms of engagements. The collaborations that worked in communities took a different structure. For example, in the 'Water advocacy and water point committees' collaboration, a CSO member said, "*People can just hold community meetings at someone's house…so the home-based approaches from the church have been very useful and they have provided a very safe environment for conversations"* (CS04).

Four collaborations started with formalised initial agreements including the development of Memorandum of Understandings (MoUs) and Terms of References (ToRs), this reportedly made accountability easy to track. However, as found in three of these collaborations this approach lacked flexibility, and once agreed upon, there were little to no adaptations made to these agreements to match the changing contexts in the city. A lack of inclusivity in the development of initial aims was identified in the 'Wetlands utilisation guideline development' collaboration. In this case, some members were merely invited to join after the initial agreements had already been developed. This not only affected the collaborations in terms of agreeing on the next steps but the overall internal legitimacy of the collaboration as the goals were imposed on new members. Funders played a minor role in the execution of projects or activities in both need-based and project-based collaborations.

#### 6.4.2.3. On governance

In collaborations in the policy and strategy group, the final decision-making power rested on the sector in which the policy and strategy would be implemented. With project-based collaborations, most of the decision-making was decided upon based on the purpose and goal of the collaboration. In needs-based collaborations, final decision-making was based on the overall needs of people in local communities. For example, the 'Maize and cash distribution' collaboration made use of community means testing to target the most vulnerable in society using ward workers. As one respondent stated, "*Community means testing is the simplest method…you get to a place; people will tell you that Mr. So-and-so is the worst amongst ourselves"* (NG01).

Two collaborations, the 'Maize and cash distribution' and the 'Water advocacy and water point committees' collaborations took into consideration the gender dynamics. Women, the old, the sick, and child headed families were given priority when receiving maize at distribution stations. Gender dynamics were also considered in terms of ensuring that the voices of women were heard in meetings in the 'Water advocacy and water point committees' collaboration. Inclusivity was highlighted with one respondent stating, "*Issues of gender are streamlined into all activities…you cannot ignore the gender dimension"* (CS04).

### 6.4.3. Social media use in collaboration processes

In addition to frequent meetings for updates, five collaborations made use of the WhatsApp social media platform as a communication and monitoring tool for collaborations. Due to the monitoring aspects of the 'Water strategy document development' collaboration, members had frequent updates through the WhatsApp platform. Additionally, the 'Wetlands utilisation guideline development' collaboration made use of WhatsApp platforms in-between monthly meetings to communicate between teams. The use of the WhatsApp platform was widely used as a communication tool due to its convenience in collaborations that had a community arm. One respondent stated, "*We cannot ignore WhatsApp as a convenient new media form of communication"* (CS04). Furthermore, most (three) of the collaborations in the water delivery and access category made use of WhatsApp platforms to communicate with the Harare water department. One collaboration made use of the U-reporting tool (a cell phone tool that uses messaging to communicate leakages between a server location and local communities).

## 6.5. Discussion

### 6.5.1. The nature of cross-sector collaborations was influenced by the context of the CoH

The context of the CoH influenced the nature of cross-sector collaborations that were occurring in response to drought. The cross-sector collaborations mainly responded to drought based on how drought affected the city. Response to drought through maize distribution and cash injections in local communities was founded on the CoH being prone to food insecurity as discussed previously in Chapter 4. The concern that food insecurity would mature into a famine (United Nations World Food Programme, 2019) meant that a food security category in drought response was necessary.

Globally, the responses to food insecurity have been similar to those in the CoH through the donations of maize and cash injections in communities (Mude *et al.*, 2012; World Bank & Baker, 2012). In Ethiopia and Kenya however, the donation of cash was ineffective in that the cost of food increased during times of drought. As such, provisioning of food was favoured (Arega & Shively, 2019; Hirvonen & Hoddinott, 2020). Neighbouring South Africa has an example of a proactive approach to food security. Businesses in South Africa have collaborated with local governments through their corporate social investments; which included improving the access of emerging farmers to the supply chain and building capacity of farmers in proactive solutions to environmental issues (Hamann *et al.*, 2011).

The two collaborations within the wetland management category were much needed in the CoH. Zimbabwe is a signatory to the Ramsar convention which implies the need to manage wetlands according to international standards. However, the management of wetlands in the CoH had been contested with political interference and power dynamics (Chirisa *et al.*, 2017). Shopping malls, taxi ranks, human settlements, and farming were being built on wetlands due to building permits being handed to people without concern for wetlands (Matamanda *et al.*, 2018). Additionally, there is a lack of policy frameworks that guide the use and management of wetlands in the CoH (Chirisa *et al.*, 2017; Matamanda *et al.*, 2018).

The development of guidelines for natural resource management is evident in various contexts and these have often followed multi-stakeholder approaches (Cheng & Sturtevant, 2012; Were *et al.*, 2013; Lecuyer *et al.*, 2018; French *et al.*, 2020). Similar findings to the CoH where political influence was suspected to influence the outcome of policy-making collaborations at city level were found in Peru (French *et al.*, 2020), Nigeria (Chikoto-Schultz & Uzochukwu, 2016), and Uganda (Were *et al.*, 2013). While commendable, the development of utilisation guidelines on wetlands might still not

yield the intended results when it comes to implementation. This was the case in the decentralised wetlands governance in the Lake Victoria Basin, Uganda; as even when the policies were there, poor implementation of the collaboration resulted in the policies not yielding intended results (Were *et al.*, 2013). In Namibia however, the collaborative implementation of the Ramsar Convention on wetlands yielded better results as there was co-operation and buy-in from the people on the ground (Ramsar, 2018).

The response to drought being linked to cholera and typhoid outbreaks resulting from lack of access to clean water was not unfounded. Access to water has decreased in Zimbabwe as a whole; between 1990 and 2015 the percentage population that had piped water in their houses decreased in the CoH. Due to an increase in population in the CoH and dilapidated infrastructure, sewage reticulation systems are overburdened and sewage occasionally spills into the city's main water source (Nhapi, 2019). The local government has not been able to procure enough finances to clean water sources and maintain infrastructure in the city. Residents have had to go without municipal water for weeks and relying on alternative water sources. This increases the likelihood of waterborne diseases in the CoH, making such collaborations necessary.

Examples of collaborations relating to poor water and sanitation conditions are evident in other African countries with similar conditions. Similar collaborations have been undertaken between local governments, private companies, and CSOs in Malawi (ICLEI, 2018) and Nigeria (Chikoto-Schultz & Uzochukwu, 2016). Collaborations in the water access and delivery category were conducting similar activities sometimes in the same areas. This was the case in Blantyre, Malawi and led to issues such as replication of activities in few communities while other communities did not have any engagements occurring. In Blantyre, this was addressed by the creation of one broad collaboration operating in multiple communities to avoid confusing citizens and to leverage resources properly (ICLEI, 2018).

### 6.5.2. The context of the CoH provided drivers for cross-sector collaborations

For a slow-onset disaster such as a drought to have reactive responses shows poor preparation and planning (Fu & Tang, 2013) which is inefficient and ineffective (United Nations Office for the Co-ordination of Humanitarian Affairs (UNOCHA), 2019). Most of the collaborations in the CoH could not start without necessary funding and multiple linking mechanisms. The newness of the two collaborations directly responding to drought could be attributed to the lack of funding and the biases of donors to wait until acute stages to start funding collaborations relating to droughts (Nhamo & Mabhaudhi, 2019). Although rapid-onset, Cyclone Idai that hit Zimbabwe in May of 2019 highlighted

how mobilising support for disaster response was difficult due to the socio-political and economic situation in the country (GoZ, 2019). This same reason could have been a factor in the delayed mobilisation for drought response in the CoH. another perspective could be that the CoH is still relying on crisis management approaches instead of proactive approaches that build drought resilience in urban settings (GoZ, 2016, Nhamo *et al.,* 2019).

In terms of the legislation, much of the drought resilience programmes had been focused on rural areas and only recently has drought resilience moved to urban areas (GoZ, 2019; Frischen *et al.*, 2020). As such, the delay in drought response in cities could be due to the urban areas being often neglected in terms of drought response. Delayed responses to disasters have been evident internationally where most governments have been found to wait until a slow-onset disaster reaches acute phases (Baudoin *et al.*, 2017; Nhamo *et al.,* 2019; UNOCHA, 2019). In neighbouring South Africa, delayed action to reduce drought impacts were also found during the 2016 El-Nino related drought (Baudoin *et al.*, 2017). Delayed responses were also found in Madagascar, Malawi, Zambia, and Zimbabwe with countries hurrying to respond during the peak of the 2015/16 drought (Nhamo *et al.*, 2019). The consideration of drought response in urban areas is commendable, even though it still faces challenges in terms of the opportune time to start collaboration initiatives. Having a standing committee designated to drought disaster response would be effective in mobilising support for disasters provided there is swift co-ordination as found in other studies (Dube, 2015; Koontz & Thomas, 2018). Constant communication through social media could be essential in maintaining collaboration even in non-peak years.

Single sector inadequacies as a condition towards the starting of collaborations may be explained by the eroding governance in the water sector and wetlands management, and the reduced capacity to respond to drought in the CoH. The high levels of corruption and the lack of accountability in water service delivery needed to be addressed through working together in a collaboration (Manzungu & Mabiza, 2004). The city is rife with insufficient budgets and the overall macro-economic environment makes it harder to procure the necessary funding for effective drought response (Nhapi, 2019). It was not unexpected to find multiple collaborations that were motivated by the need to leverage external resources in funding and expertise. Response to drought due to single sector inadequacies is also explained by a number of the collaborations responding to service delivery issues. This suggests that local government is not able to adequately provide services without help from other sectors.

Single sector inadequacies and the need to leverage external resources and expertise are also at the core of collaboration formation in other contexts (Smith & Becker, 2018). Collaborations responding to a gap in service delivery are not a new phenomenon as studies in other developing countries have found local governments contracting non-state actors to bridge the gap in service delivery (Batley & Rose, 2011; Sansom, 2011; Viale *et al.,* 2017; ICLEI, 2018). The response to multiple risks in the environment following turbulence was also noted in collaborations in Zambia and South Africa, which were responding to a range of drivers including, i) communities coming together to address a service delivery issue, and ii) delivery of government policy and responses to social crises (Rein *et al.*, 2008). The fact that collaborations formed in a turbulent environment are experienced globally as cross-sector collaborations are increasingly being recognised as a means to respond to turbulences (Simo & Bies, 2007; Kapucu, 2012; Bryson *et al.,* 2015). The need to leverage resources was evident in other developing country contexts such as in collaborations in Malawi, Mozambique, Pakistan, and Brazil (Bano, 2011; Gutiérrez *et al.*, 2014; ICLEI, 2018).

### 6.5.3. Previous collaboration experiences and existing networks were influencing drivers and processes of collaborations

Lemaire and Provan (2018) found that existing networks were important in ensuring the sharing of information, resources, and expertise in future collaborations. According to Murphy et al. (2015) prior collaboration experiences may increase the likelihood of an organisation to choose partners that align with their missions and values when forming cross-sector collaborations. This is shown in the CoH where existing networks enabled collaborations to form easily and made it easier to form strategic alliances to secure funding. An analysis of a multi-sector network by Lemaire and Provan (2018) also found that, similar to the collaborations in the CoH, existing networks positively influenced collaborations between NGOs and government agencies.

In the CoH, previous collaboration experiences provided a means to evaluate other partners competency and measure their trustworthiness. Where negative experiences were involved, the building of trust in collaborations was affected particularly between CSOs and national government. This could be explained by the constant negative interactions that have occurred between members in the two sectors and the general tension that exists between CSOs and national government (Chikoto-Schultz & Uzochukwu, 2016). Such tensions explain the secrecy in sharing of information noted in collaborations in the CoH.

Previous collaboration experiences influencing how other partners perceive collaborating partners were found in other studies (Rondinelli & London, 2003; Clarke & Fuller, 2010; Tu & Xu, 2020). Tu and Xu (2020) assessed the process of trust building in cross-sector collaborations in two communities in China. They found that similar to the collaborations in the CoH, previous collaboration experiences, and reputation of organisations were used as a way to gauge trustworthiness of partners (Tu & Xu, 2020). This level of trust building is considered first stage in which the formation of trust is rational and to low degree. Previous experiences being used as a way to assess trustworthiness, capabilities, and goodwill of partners was also found in other contexts (Rondinelli & London, 2003; Arya & Salk, 2006; Koljatic & Silva, 2008; Rivera-Santos & Rufin, 2010).

Tu and Xu (2020) also identified that, the longer the lifespan and hence interaction between collaboration partners, the easier it was to build trust as there would be increased alignment between partners. Additionally, Murphy et al. (2015) suggested that positive prior experiences improved the ability of partners to build trust in cross-sector collaborations. These two points effectively explain why communities trusted members from CSOs and NGOs in the CoH, and their intentions more than they did members from the local authority who had recently started working in the city. Similar findings in which prior experiences built alignment between partners and long-term value of the collaborations were also found in a study by Reast et al. (2010).

In the collaborations were previous experiences facilitated information sharing, the collaboration exhibited the diffusion stage in which there was resource exchange which strengthened the interdependence (Tu & Xu, 2020). A similar study on collaboration in Malawi and Zimbabwe found that having previously worked with other partners on other issues made it easier to collaborate in a new collaboration (ICLEI, 2018). Given that political opinion has tended to take centre stage in Zimbabwe (Bratton & Masunungure, 2018; Matanda, 2019), the tensions leading to negative collaboration experiences may be influenced by power dynamics and political factors and not necessarily the inability of a partner to perform. As such, cross-sector collaborations need to consider the influence of power and politics in collaborations and identify ways in which power imbalances within collaboration have an influence on the level of trust that can be built (Brisbois, 2016). Collaborations need to consider making trust building a continuous process that starts even before collaboration begins. There is need to invest in ways to enhance existing networks such that they are a better linking mechanisms not only at initial stages (Tu & Xu, 2020).

### 6.5.4. The strategic purpose influenced the activities and structure of collaborations

The influence of the context of the CoH was noted in the different strategic purposes driving collaborations responding to drought. The challenges in managing wetlands, and the need for response to turbulence in communities informed three strategic purposes namely, i) policy and strategy making, ii) needs-based, and iii) project-based collaborations (Figure 13). These different strategic purposes then informed the type of activities that collaborations took. Bryson et al. (2015 p. 663) proposed that, "*The nature of the tasks to be performed at various levels, including the client or street level, are likely to influence a collaboration's overall effectiveness; a measure of structural ambidexterity is likely to be necessary to manage the array of tasks."*

In collaborations falling within the policy and strategy development group, communities were not directly involved in the collaborations, rather they were represented by CSOs that were part of the collaborations. This may explain why these collaborations did not have an arm in communities as the CSOs were already working within those communities. This level of ambidexterity (or lack thereof) was a challenge in that the CSOs involved in the 'Wetlands utilisation guideline development' collaboration felt their inputs to the guideline were not being heard. In the end, silencing the voices of CSOs is silencing the voices of the community. The government having the power to publicly influence decision-making reinforces has the potential to reinforce power imbalances in that the government might maintain policies that serves them and not communities (Cleaver & Whaley, 2018). In another collaboration, the CSOs representing communities charged a membership fee, which meant that the voices were of those who had paid the fee were the ones being reflected upon and amplified. This in turn has a marginalising effect on the voices of other community members who are not members of the CSO as they do not have the power to determine what is being discussed in those settings which may end up maintaining patterns of inequality (Cleaver & De Koning, 2015; Cleaver & Whaley, 2018). Similar findings were also found in Malawi, where representation of communities in policy development collaborations by CSOs was found to be challenging. In one collaboration in Blantyre the partners felt that the CSOs were not really representative of communities (ICLEI, 2018). In another collaboration in Lilongwe, partners felt that it would have been better to involve communities directly instead of using CSOs (ICLEI, 2018). Incorporating the voices of communities through CSOs was not effective in another study in Nigeria due to the negative view that government departments had for CSOs (Chikoto-Schultz & Uzochukwu, 2016). Cross-sector collaborations that have communities represented by CSOs have the potential to alienate community members. The structure of collaborations within the policy and strategy development has the ability

to perpetuate power imbalances in society and further social injustice by taking away agency from members in communities (Cleaver & Whaley, 2018).

Structural ambidexterity was reflected by collaborations in project-based and need-based groups. Collaborations within these strategic purpose groups had two collaboration arms, one operating between organisations, where communities were represented by CSOs and another operating directly in local communities. This could be attributed to these collaborations responding to either the needs of the community or had a project running within those communities. Collaborations having multiple arms and levels are not isolated to the CoH. In South Africa and Namibia, Rein et al. (2008) also found collaborations occurring at multiple levels. In another cross-sector collaboration study in South Africa, Kong et al. (2020) also found two arms of collaborations one with all members and another with shorter term technical teams. However, these teams faced challenges in that, while different collaboration levels were meant to make use of outputs from another collaboration level, decisions made at one collaboration level were difficult to translate to collaborations on another level (Kong *et al.*, 2020).

# Chapter 7: Results

# Barriers and enablers to cross-sector collaboration in the city of Harare

## 7.1. Overall barriers to collaboration

In chapter 3, I grouped barriers to collaborations from literature into a typology with three main themes that guided my analysis. These were the barriers related to, i) the context of the city, ii) the differences between organisations and sectors, and iii) the partnership process. Table 12 below, shows a similar table to Table 2 in Chapter 3, adapted based on the barriers identified in cross-sector collaborations in the CoH. All the barriers listed in Table 12 are from the eight cross-sector collaborations contributing to drought response in the CoH. Emergent barriers (results from inductive analysis) are highlighted in grey and the (*) indicates relationships and interactions between barriers. Some barriers identified were more limitations of the strategy of response to drought than collaborative barriers. However, such limitations undermined collaborations in terms of their outputs, hence I included them in this results chapter.

Most emergent themes (grey) identified were within the contextual barriers, with a new category of legislative barriers added to the sub-themes. Some barriers, although they were found in the literature, manifested differently in the context of the CoH. For example, financial uncertainty was influenced primarily by changes in monetary systems which is inherent to the CoH and Zimbabwe, rather than the general lack of collaboration financing (section 7.2). Organisational barriers identified were associated with different sectors having different sets of systems and values which manifested as barriers as there was no proper negotiation on the implications of such sector differences. Partnership barriers were heavily influenced by the contextual barriers and the challenges in organisational differences.

**Table 12: Identified barriers to cross-sector collaborations in the CoH (the emergent themes are highlighted in grey, and interactions noted by the (*)).**

| Theme | Sub-theme | Barriers to collaborations in the CoH |
|---|---|---|
| **Contextual barriers** | Resource barriers | ▪ ***Changes in monetary systems caused by an unstable macro-economic environment leading to financial uncertainty*** |
| | | ▪ Lack of finances (travel and operations-short timeframes) |
| | | ▪ Inconsistent/ lack of funding limiting outcomes or activities of collaborations, |
| | | ▪ Burden of financial responsibilities on one sector-governance barrier* |
| | | ▪ Depleting natural resource |
| | Power and political barriers | ▪ ***Political differences influencing membership and collaborations in communities*** |
| | | ▪ Unstable political environment leading to political interferences in collaborations |
| | Legislative barriers | ▪ Existence of legislation that hinder full and free participation of civil society organisations |
| | | ▪ Contradictory legislation around the management of wetlands |
| **Organisational barriers** | Differences in organisational ideologies | ▪ Different ideologies and missions, cultures |
| | | ▪ organisational self-interests, |
| | | ▪ Hierarchical nature of other sectors |
| | | ▪ ***Members hesitant to sharing information – relational barrier**** |
| | | ▪ Different perceptions of success – poor communication* |
| | Differences in organisational or sectoral systems | ▪ Different procedures, standards and routines leading to lagging response times |
| **Partnership barriers** | Planning issues | ▪ Lack of formal processes at organisational and government levels |
| | | ▪ lack of/too much flexibility in the goals |
| | | ▪ Different levels of commitment |
| | | ▪ Haphazard collaborations lacking planning for long-term sustainability |
| | Structure and governance issues | ▪ Poor resilience in communities leading to overreliance on one member – uneven distribution of responsibilities |
| | | ▪ Poor governance of collaborations at community levels (membership turnover due to mobile population) |
| | | ▪ Burden of financial responsibilities on one sector (NGO) |
| | | ▪ Gaps in coordination due to power struggles |
| | | ▪ Failure to incorporate inputs from other members |
| | | ▪ Inability to balance power – inability to negotiate leadership roles |

| Theme | Sub-theme | Barriers to collaborations in the CoH |
|---|---|---|
| | | ▪ ***lack of transparency and openness – relational and legislative barrier**** |
| | Relational barriers | ▪ Organisational and, sectoral stereotypes (stemming from political interferences and legislative barriers) *<br>▪ Members suspicious of one another*<br>▪ Members hesitant to sharing information<br>▪ Lack of information sharing<br>▪ Failure to build trust and accountability<br>▪ Overreliance on one partner<br>▪ Members operating based on prior repressive legislation |
| | Knowledge and communication barriers | ▪ Failure to communicate goals and objectives of collaborations leading to different perceptions of success by members of different sectors/ organisations* |

## 7.2. Resource barriers

### 7.2.1. Financial uncertainty due to an unstable macro-economic environment

During the time this research was conducted, a three-tier pricing system existed in Zimbabwe in which products were priced in, i) Bond notes, ii) Bond coins, and iii) the (Real Time Gross Settlement) RTGS/Ecocash price. The influence of such a pricing system affected four collaborations, i) the 'Water strategic plan development', ii) the 'Potable water by 2020 and taskforce teams', iii) the 'Drought resilience programme', and iv) the 'Maize and cash distribution' collaborations. The local authority charged rates in the local RTGS$ and yet foreign currency was needed to procure chemicals required to treat water. Consequently, by September 2019, the city's water treatment plant (Morton Jeffery) had to be closed briefly due to lack of foreign currency to treat the water. This resource barrier magnified the single sector inadequacy of the water sector (discussed in section 6.2.2.1) to respond to drought and affected the processes and plans of the 'Water strategy document development' and the 'Potable water by 2020 and taskforce teams' collaborations.

Funders provided funds in USD and the USD had been made an illegal tender, meaning it had to be converted to local currency to be used locally. Donations being made in USD while local currency was in RTGS$ affected the 'Drought resilience programme' and the 'Maize and cash distribution' collaborations. This was because, the three-tier pricing system was affected by random changes in exchange rates which led to financial uncertainty in terms of achieving collaboration goals (Box 4) and ensuring that recipients of the distributed cash would be receiving money in a legal tender.

**Box 4: Challenges to cross-sector collaborations associated with the macro-economic environment in the CoH.**

"I will give an example of the changes on the recent monetary issues…we get funds in USD$ then when you wake up tomorrow, you are told that USD is now an illegal tender, you are now forced to convert that money to RTGS$ of which the price of the RTGS is affected by the three-tier price system you might end up not being able to deliver what you have committed"- DP03

"It is a major issue, especially when we changed from dollarization from the USD to the local currency. It is an issue because chemicals we get them in USD$, but also people pay in RTGS $ and for you to get the Forex it means you have to use the interbank rate yet our rates are still at the same level" – LG03

### 7.2.2. Natural resource (groundwater) limitations

Most collaborations in response to drought in the CoH involved sinking boreholes, especially in poor communities. However, this response strategy was affected by limitations in groundwater supply. The increased drawdown from the various boreholes sunk in the CoH over the years, along with the lack of rain to recharge groundwater was causing a hydrological drought. Underground water supply had been depleting and there were reports that some of the boreholes were drying up and it was difficult to access water at usual levels (Box 5). While this challenge is more to do with the type of response strategy chosen by the collaboration, the ability to achieve intended goals in terms of ensuring the provision of water was undermined. The sustainability of this specific response is threatened especially in drought situations where there is no rain over long periods.

**Box 5: Resource limitations associated with cross-sector collaborations responding to drought through borehole sinking**

"It is becoming harder and harder for people to get underground water in Harare. Traditionally, people have been sinking boreholes up to 40m in Harare but now…they are even getting dry boreholes at 80m and 100m in areas where they would immediately get ground water supply"-DP01

"People are digging shallow wells because there is no municipal water supply, and some have gone as far as 10m with no water. Groundwater, I think for now is still accessible, but the trend is that it may become a little bit more difficult to get if the drought persists"-CS06

## 7.3. Power and political barriers

Power and political interference affected the 'Alternative water supply' collaboration in terms of mobilising for membership. It was expressed to have been difficult to have the right people in the collaboration as potential collaboration members were torn between political party lines (Box 6). Political interference contributed to members forming "parallel structures" that only served a select few people in society in the 'Maize and cash distribution' collaboration. Additionally, political interference was referred to as a barrier in two collaborations that were working in communities (the 'Alternative water supply' and the 'Water advocacy and water point committees' collaborations). In the case of these two collaborations, politicians exercised their power and treated communities as their domains which made the process of collaboration challenging (Box 6). Finally, the decision-making process around management of wetlands was suspected to be influenced by power and political interference. This caused barriers in the 'Wetlands conservation and education programme' and the 'Wetlands utilisation guideline development' collaborations (Box 6). Power imbalances go on to influence other aspects of collaborations following in the next sections from building trust to negotiating leadership of collaborations.

**Box 6: Effects of power and political influence in cross-sector collaborations**

**Political interference on membership**

"Some politicians are involved in the collaboration, but some are not, the problem is like if there are political differences. If someone belongs to another party and the other one to another, if you call party A to the meeting, part B will not attend and yet those people might be the best for these meetings." -(LG02)

**Political interference in communities**

"Also, political muscles at times if you go into another area without informing the politicians in there would feel you want to remove them from whatever the… so you will have at times it take time to get into other areas because you have to do door to door using their protocol until you start saying whatever you want to share with the community." -(CS04)

"[Communities have] a lot of polarisation so sometimes as we do our work…sometimes the politicians get angry with us because they feel that we are encroaching into their territory. The politicians have these assumptions that the communities are their domain, so it creates tension and sometimes they work against you."- (CS04)

**Political interference in decision making**

"I suspect that they get instructed from the top, they do not act the way they would like to act they can not - so the political will in that equation has got to be factored into all the strange behaviour of the little management in these government institutions" -(CS05)

"The wetland trust committees would even take CoH to courts trying to nullify the permits because some of the areas would have been granted the permit through political muscles then it would be now a war"- (LG02)

## 7.4. Legislative barriers

### 7.4.1. Inconsistent and contradicting legislation

Inconsistent and contradicting legislation was highlighted as a challenge in the two collaborations responding to drought through wetlands management. While most regulations that govern the

management of wetlands in the country were solid, some of them had inconsistencies and contradictions regarding the activities that are permitted on wetlands. Apart from the Environmental Management Act, policies and legislation refer to wetlands management superficially. The overlapping mandates and inconsistencies in policy and legislation led to various conflicts between institutions, regarding wetlands management responsibilities. The contradictions in the Regional Town and Country Planning Act, and the Environmental Management Act were referred to specifically as having contributed to the stalling of practical collaborations on wetlands management (Box 7).

**Box 7: Effects of contradicting legislation on cross-sector collaborations**

> "We have got an organisation…they are going to help align the gaps in the Regional Town Planning Act with the gaps in the Environmental Management Act and gaps in other acts that are like Urban Councils Act, any act that feed into wetlands".-CS05
>
> "So they go around, saying all these but they do not implement on the ground they have not harmonised to align those laws, so they contradict each other."-CS05

## 7.5. Organisational barriers

### 7.5.1. Challenges in negotiating leadership status

As discussed previously, one of the ways CSOs engaged and lobbied government was through dialogue. However, whenever CSOs called for dialogue and collaboration, their invitations were often met with excuses from government officials. However, when the government officials did attend the collaboration there was friction between national government officials and members from CSOs with regards to who should take the leadership role.

One respondent alluded to the challenge emanating from the fact that CSOs are not a government entity, so the perception was that they had no right to convene government ministries for collaboration. The respondent stated, "*After the negotiation over the running of the taskforce, which was a challenge, they say you are a non-state actor why would you convene state actors and so those power dynamics issues were at play"* (CS01). Issues to do with seniority and power were not easily navigated in collaborations where national government was involved, unless members from other organisations took a subordinate role in the collaboration (Box 8). This was also noted when voices of CSOs were silenced when there was a lack of consensus (discussed in chapter 6). Other embedded collaborations that were meant to involve multiple sectors ended up occurring without the

knowledge or input from CSOs. One respondent stated, *"We have not had a fully-fledged meeting; it was the same time that we had legal proceedings against key state actors they thought we wanted to get information, so it did not bring desired results that we had anticipated"* (CS03).

**Box 8: The inability to balance power as a barrier to cross-sector collaborations**

"Bureaucrats, service delivery managers and councilors, its always around their power and control, and they think that you are taking away their control they get very angry but if you kind of submit to them they kind of want to work with you, so you need to strike a balance so it is a complex process"-CS04

"We have got also some ministers who think that they know everything by virtue of being appointed minister we have a serious problem with the minister of local government he is not open to civic engagements" -CS03

"They do not view us as people who genuinely have a concern and a voice that we carry from the ground in terms of our membership that perception that view is not being shared."-CS01

## 7.6. Partnership barriers

### 7.6.1. Governance barriers at local levels

Barriers in the governance of collaborations at local level were faced barriers specifically by collaborations that involved the sinking of boreholes. Historically, the sinking of boreholes in response to drought has been rural areas. When the service was brought to urban areas as a way to provide alternative water sources, it was initially met with resistance by the local authorities. This was because the prevalence of boreholes as alternative water supply sources was blamed for people's unwillingness to pay for piped water from the municipalities, thereby competing with their revenue base. It was not clear whose responsibility it will be to maintain the boreholes considering that the management of water utilities in cities assumes management of piped water systems.

Efforts to address this uncertainty in the CoH resulted in the adoption of water point committees at boreholes whose responsibilities, amongst others include the collection of a monthly user fee to buy water treatment chemicals and to manage conflict and vandalism at water collection points. While this had worked in rural areas, the transition of this response strategy to urban communities proved a challenge due to a highly mobile urban population (Box 9). While community members were willing

to take the roles in the waterpoint committee, such a mobile population meant that there was a need to constantly train and capacitate new waterpoint committees every few years.

**Box 9: Effects of a mobile urban population on a cross-sector collaboration**

> "Waterpoint committees do work in the urban context, but…the population is highly mobile you establish a waterpoint committee today three years down, the people have moved locations, so I think there is a need for a stronger mechanism to ensure sustainability of those boreholes".-DP02
>
> "In some local authorities boreholes are viewed as competing with piped water supply, which is paid for, so you find local authorities view boreholes are competing with their revenue base which is water sales"-DP03

### 7.6.2. Relational barriers

While all eight collaborations had partners from CSOs, the level at which the CSOs could participate in collaborations was restricted by the relational barriers linked to legislation that had recently been retracted. Before 2019, CSOs in Zimbabwe were governed by two legislations namely, i) the Public Order and Security Act (POSA) (2002), and ii) the Access to Information Protection of Privacy Act (AIPPA) (2002). However, the premise of the creation of such legislations was that CSOs were enemies to the state and restricted activities and access to information by CSOs. While headlines were made with national government committing to retract these Acts, some partners from CSOs were convinced nothing had changed. A respondent referred to the POSA as a hindrance towards collaboration stating, "*The government has maintained the Public Order and Security Act and has maintained other bad laws which restrict citizen participation, so these have presented constraints to active citizen participation and collaboration"* (CS04).

The relationship that existed between the national government and CSOs was scarred with mistrust. As part of their lobbying, CSOs often call for dialogue with national and local government. Where dialogue had failed, CSOs have had litigation cases against state actors when human rights were violated (in this context the right to water and national government not availing funds for water treatment). As noted previously in chapter 6, this created an environment of paranoia, which affected the sharing of information in collaborations as national government feared that members from CSOs were calling for collaboration to acquire information to use against them. A respondent captured the effects of similar barriers in Box 10. Furthermore, the perception of CSOs being agents with foreign

agendas had influenced the level of trust and the weight given to the voices of CSOs in two collaborations. One respondent asserted, *"There is always a view that we have hidden agendas…to advance foreign agendas and all those perceptions so that is the unfortunate thing"* (CS06).

**Box 10: Effects of relational barriers on information sharing**

"Remember we are a Civil Society Organisation…so that limits the amount of information that is availed…because they perceive you as people who might use that information for malicious intent so access to information is still a challenge…so those are some of the challenges that we have also encountered in the collaboration how far are we prepared to share what information and how prepared are state actors to avail critical information that also helps us even on our part to take positions and decisions from an informed basis?"-CS01

## 7.7. Overall enablers to collaboration in the CoH

In Chapter 3, enablers to collaboration were grouped into three main themes which guided my analysis. Table 13 below shows a similar table to Table 3 in Chapter 3 with the enablers identified in the eight cross-sector collaborations operating in the CoH. The emerging enablers are highlighted in grey. Partners having a shared understanding of the problem at hand enabled collaborations to start. Positive prior collaborative experiences between partners contributed to building trust and information sharing. The availability of resources was an overall enabler in the starting of most collaborations as noted in chapter 6. The use of a social media platform ensured inclusivity and frequent monitoring in collaborations.

**Table 13: Table showing identified enablers to cross-sector collaborations responding to drought in the CoH**

| Themes | Sub-themes | Indicators |
|---|---|---|
| **Comprehensive planning at initial stages** | shared understanding of problem and goals | ▪ Presence of one or more linking mechanisms<br>▪ Use of informal engagements to have a general agreement on the problem at initial stages only<br>▪ Shared understanding of the problem – at initial stages only |
| | Resource availability | ▪ Presence of committed able sponsors who funded collaborations<br>▪ Mobilisation of skills |
| **Political and social will** | | ▪ Politicians endorsing collaboration<br>▪ People meeting in homes<br>▪ People availing themselves for roles<br>▪ People willing to use their own resources for purposes of collaboration |
| **Effective relationship and trust building** | Skills and expertise | ▪ Legitimacy (internal and external)<br>▪ Stakeholders have capacity to act (right people involved) and have clear roles and responsibilities<br>▪ Experience<br>▪ Frequent monitoring and engagements |
| | Prior relationships | ▪ Good interpersonal skills<br>▪ Existing networks (including pre-existing relationships)<br>▪ Transparency and easy information sharing<br>▪ Previous engagements |
| **Use of accessible Social Media** | Ensure frequent engagement and monitoring | ▪ The use of the U-reporting tool to engage in reporting pipe leakages<br>▪ Used as performance management by local authority<br>▪ Reporting<br>▪ Frequent engagements when no meetings or workshops were at play<br>▪ To get members to open up |
| | Include various members of society | ▪ Ability of the structure to handle changes in environment strategically<br>▪ Right people involved<br>▪ Inclusivity through stakeholder analysis in planning and inclusivity of other sectors in collaboration- harnessing capacity and competencies |

## 7.8. Political and social will

People in communities were willing to take part in becoming members of waterpoint committees or in monitoring infrastructure and manage conflict. As noted in chapter 6, collaboration in communities was easier to initiate and carry out as people were open to having meetings in their houses which showed high levels of trust and will. A respondent added, "*We have been able to identify*

*community leaders who are not afraid to walk into offices [and are] not afraid to hosts meetings in their homes, so the home-based approaches from the church have been very useful and they have provided a very safe environment for conversations"* (CS04). This was also because communities were the ones largely affected by water challenges so collaboration around such issues were welcomed. Another respondent noted, "*People remain there, they face water challenges… if they want to meet, they meet in their homes, their homes are open for our engagements"* (CS07). Political will played a part in endorsing and sourcing funds for the 'Wetlands utilisation guideline development' collaboration (Box 11).

**Box 11: Participants reflecting on political will as an enabler to collaborations**

That is the biggest enabler in the political will that no one should die of hunger. We should not-never allow this drought to degenerate into a famine so everyone must be assisted. So, number one is our policy and regulatory framework, which is very conducive. -NG01

Ours is a standing committee which shows that there is really political will in this country to manage and make sure we alleviate to manage the disasters and make sure we alleviate the suffering of our people in Zimbabwe- NG02

"The collaboration had the full support of the Ministry of Lands and received a special budget from the Environmental Management board consistently- NG01

## 7.9. Trust building processes

### 7.9.1. Prior collaborating experience and relationships

Relationship building between members of the 'Water strategy development' collaboration was key in ensuring increased levels of trust between members. Collaborations with members that had long-lasting relationships and collaborations that had organisations with similar mandates demonstrated high levels of trust. There was also an overall good relationship between national government officials and officials in NGOs unlike CSOs. An NGO official in the 'Alternative water supply' collaboration alluded to a working relationship of close to 15 years in the CoH between their organisation and national government. As noted in section 6.4.2 (Chapter 6), prior collaboration relationships were used to determine the trustworthiness of other members. Good prior relationships ensured that trust was easily formed between members as well as in building trust in communities.

Relationship building and trust facilitated an environment of transparency and accountability both internally and externally. In the 'Water strategy document development' collaboration, this was evidenced by the sharing of information with other partners as noted in section 6.3.2 (Chapter 6). The allocation of roles and responsibilities was easier in collaborations that had trust and used the strengths of each member organisation to the advantage of the collaboration.

## 7.10. Use of accessible social media

### 7.10.1. Social media in monitoring

As noted in section 6.4.3. (Chapter 6), WhatsApp social media platform was used to maintain contact between the collaborators in periods where collaboration was not occurring on the ground. It was also seen as a tool to get answers quicker as compared to emails. Additionally, it was seen as a tool to get the bureaucrats to open and share some information they would not share otherwise, as WhatsApp is considered informal. A respondent added, *"Because it (WhatsApp) is founded on a kind of informality and it is this informality that most bureaucrats want, not the hard and fast rules of engagement where their official communication could be used in quotes"* (CS04). Apart from the one collaboration responding to food insecurity, all other collaborations had a WhatsApp group as a component that was used to not only share information but to keep themselves accountable when there was no progress happening on the ground. One respondent said, *"We also put some WhatsApp platforms where we communicate, they have also helped us in terms of performance management. Because now they do reports and maybe you see one report that was reported today. You see it again next week [saying it is not yet fixed], then you see it again in the next week until you are able to see where there is urgent response and where there is delayed response"* (LG03).

### 7.10.2. Social media in engaging various stakeholders

Most community members had smartphones that could connect to the internet. Collaborations took advantage of the use of social media platforms such as WhatsApp groups to engage and capture local communities (Box 12). This was used to report pipe leakages and people building on wetlands. While the use of social media was noted as an enabler, the local authority did not have a person assigned to respond to WhatsApp messages. The reports would only be attended whenever the delegate checked their messages which would pose as a potential limitation.

**Box 12: Use of social media as an enabler to collaboration with members of the community**

"People had their own smartphones it was an opportunity because you do not need to then buy phones for people, they already had their own smartphones which is an opportunity that presented themselves the secondly they identified with the problem that is when it comes to access to water it was a priority for communities so that has been another opportunity"CS01

"We cannot ignore WhatsApp as a convenient new media form of communication, and some of the bureaucrats are on WhatsApp and its cheaper and it makes them easily accessible to people emails, a lot of people do not have access to internet, but they can buy WhatsApp bundles and they can communicate so it's convenient for the poor"CS04

"Somehow people also are running away from phone calls to deal with charges that -- so they are also using WhatsApp as a form of communication --so already we simply then got on their platform to say they use their own data"- CS03

## 7.11. Discussion

### 7.11.1. Tensions within the socio-political and economic environment of the CoH were posing as barriers to collaborations

As previously discussed in Chapter 4, Zimbabwe has a challenging macro-economic environment characterised by hyper-inflation (Chatiza, 2019) which contributes to the CoH having an uncertain financial environment (Nhapi, 2009; Matanda, 2019). Such an environment is at the core of the financial uncertainty faced by collaborations responding to disasters. An unstable economic environment making it harder to source funding for collaborations was found as a barrier in another study in Zimbabwe, where the political and economic environment made it difficult to mobilise support for response to Cyclone Idai (GoZ, 2019). A study by Imedi (2016) in Victoria Falls also found that the failure to collect revenue following the three-tier pricing system for services in Zimbabwe, led to poor service delivery in municipalities. Studies in Ethiopia and Peru also found that hyper-inflation strained efforts to respond effectively to disasters (Arega & Shively, 2019; French *et al.*, 2020).

A challenging economic environment combined with the lack of capacity in the DCP to effectively respond to disasters may explain the over reliance on an NGO in the 'Drought resilience programme' collaboration (GoZ, 2019). Another perspective that can explain overreliance on an NGO is that water provision is the mandate of the local authority. However, in the case of a failing sector, communities

have to contribute to that responsibility. With such a difficult economic environment, community members may not want to take on the full responsibility thus rely on NGOs. This points to the need for the local authority to play a big role in collaborations related to water supply. Over-dependence on a single organisation was also noted in a study conducted in South Africa and Zambia. In those contexts, any change that could occur in the organisation that had the most resources on would threaten the long-term sustainability of the collaboration (Rein *et al.*, 2008). Another study in the CoH found similar results, with the population being mobile and over-reliant on NGOs and local authority for the provisioning of sleeves used in boreholes (Ngala & Whitehouse, 2016).

High unemployment rates, and a majority of the population living below the poverty line may explain the highly mobile population seeking employment elsewhere. Mobile populations in urban areas are were also found in other studies in Dodoma, Tanzania (Nastar *et al.*, 2018), Blantyre and Lilongwe, in Malawi (Wanda *et al.*, 2017). However, in the case of Dodoma, only those community members with entitlement to land volunteered for the water source management roles, which made it easy to sustain such committees (Nastar *et al.*, 2018) unlike the case in the CoH. This points to a need to have a framework that regulate the people who are volunteering for roles as waterpoint committees if these committees are to be sustainable. Atiisipae et al. (2020) suggested that at community level, a sense of ownership in the management of water sources by all members was essential in ensuring sustainability of collaborations relating to water source management, as the role will be shared by multiple people.

Zimbabwe having a repressed civic environment explains why partners from CSOs were noting that their voices were not being heard and that their full participation in collaborations was limited. Another explanation is linked to legislation (POSA Act and AIPPA Act) that used to govern the activities of CSOs prior to 2019. These legislations were created with the intent to limit the engagements that CSOs were having, as CSOs were seen as enemies of the government (Mapuva & Muyengwa, 2012; Gaventa, 2018). Such a political environment forms a foundation for lack of trust to exist between the CSOs and governments which explains the challenges in information and knowledge sharing even now. The HCC being dominated by officials in the opposition party pose another opportunity for power to be exercised by parastatals in a manner that favours their political ends. Parastatals such as the Reserve Bank of Zimbabwe, with higher access to foreign currency which can be used to address some of the issues within the city were suspected to be hesitant to fund projects that will be led by the opposition (ICLEI, 2018). This was viewed to be in "*fear of losing credibility"* (ICLEI, 2018, p. 42) or in fear of "*propping up an opposition cause* (Nhapi, 2009, p. 233)*"*.

Repressive civic environments are widely familiar in African countries, with very few countries in the continent having an open civic environment for free participation of CSOs in 2019 (CIVICUS, 2019). The inability to balance power, combined with officials in national government wanting leadership of collaborations is reflected in the literature. Studies in Ethiopia and Malaysia found similar findings in that, in collaborations that had a state agency, the officials from such state agencies tended to assert dominance in the operations of collaborations (Taddese, 2015; Lee, 2019). This inability of government actors to let go of autonomy may be linked to the desire for glory seeking shown in the literature, in that government actors would want to take credit of collaborations outcomes even though they were as a result of a joint effort (Ejeta *et al.*, 2016; Lee, 2019). Headlines in newspapers on the phasing out of the POSA and AIIPA Acts have been prevalent as these legislations were deemed unconstitutional. However, there was no progress to indicate that these are not in effect to this day as the government is still being critiqued for operating in line with the legislation (Mabhena, 2019). It is therefore counterproductive to want to have healthy collaborations while maintaining legislation that is repressive towards the level of participation members from CSOs may have. There is need for national government to envision CSOs as essential entities that help in the governance of a country instead of viewing them as enemies.

Similar results in which political influence negatively affected collaborations were found in other studies (Kyriazis *et al.*, 2015; Seeletse & Africa, 2016). In Malawi political influence affected the allocation of resources, with collaborations that were headed by people in support of the opposition party receiving less resources than those headed by people supporting the ruling party (ICLEI, 2018). Not taking into consideration the voice of other partners is not new when it comes to collaborations. In the literature, this was attributed to facilitators following a tick box approach of having the right people in the room while the outcomes reflect the views of the select few (Riggs *et al.*, 2013; Audet & Roy, 2016). Additionally, collaborations reviewed in Zimbabwe and Nigeria showed that the image CSOs had went on to affect the level to which they could influence policy making processes (Chikoto-Schultz & Uzochukwu, 2016).

In terms of balancing power between organisations and sectors, a review of collaborations in literature by Ingold and Fischer (2014) and Bryson et al. (2015) showed that conflict in power sharing was at the initial stages of collaborations. This is different from the collaborations in the CoH where power struggles only started manifesting during the process of collaboration, with a perceived unity during inception phases. The low levels of trust are common in African societies (Bratton & Masunungure, 2018). Therefore, for as long as trust is an issue between citizens themselves, it will

be difficult and will take time to be easily achieved in collaborations. Trust is said to grow with increased interaction between members (Murphy *et al.,* 2015; Tu & Xu, 2020). Most of the collaborations in the CoH had a short lifespan and the time needed to continuously build trust could not be afforded. In other collaborations the secrecy in terms of classified information also resulted in the limited sharing of information (Crowe, 2013; Lee, 2019).

The inconsistencies in the policies governing wetlands are slowly being addressed and may have been because not much thought was put in to how to effectively mainstream wetlands management into policies. This is consistent with some findings from Uganda in that contradictions in policies relating to wetland management led to challenges in terms of management on the ground (Were *et al.*, 2013). A study in Togo also found similar results in that the policies that were meant to guide DRR activities had not been harmonised (Fakhruddin *et al.,* 2019). Another study in the Western Cape province of South Africa noted that departments responsible for implementing the drought response policies were working in isolation from one another. Hence, they had contradictory policies that could not fully mainstream response to drought in practice (Raju & Van Niekerk, 2013).

### 7.11.2. Taking advantage of widely accessible social media and a willing citizenry enhanced collaboration

Seven of eight collaborations took advantage of WhatsApp platform to collaborate when meetings and formal engagements could not be conducted on the ground due to various reasons. The use of social media as a collaboration tool has not been limited to collaborations in the CoH. Sakurai and Murayama (2019) noted that, "*Social media empowers local communities by enabling interactive communication and enhances collaboration with disaster relief agencies*" p.(34). In the CoH social media enabled interactive communication in collaborations in-between activities. In other instances worldwide, the use of social media has been to raise situational awareness when rapid onset disasters occur (Mossberger *et al., 2*013; Takahashi *et al.,* 2015; Sakurai & Murayama, 2019). Social media has changed the way relief organisations collect situational information. For example, the Facebook 'safe' and Twitter alert features have been used to alert disaster relief organisations of the damage and keep other people safe (Sakurai & Murayama, 2019). While people may have a bias to use social media in peak disaster times, the CoH using WhatsApp platform for continuous engagements during peak and non-peak times is commendable.

The use of social media to monitor and communicate is not unique to the CoH, and has been seen in various contexts (Gordon, 2019, Link & Scott, 2019). What could be considered unique is the choice

of social media used. Since WhatsApp is widely used by people in the CoH, it was better suited at attracting more volunteers to collaborations at local level. Being inclusive in collaborations responding to disasters is encouraged since disasters affects all people in society differently (UNISDR, 2015). In other studies, Information and Communications Technology (ICT) was used to engage the youth as partners in DRM at local level since they were familiar with new technology (Cox *et al.*, 2017). The use of WhatsApp is complimented by the social will of people in communities to make use of their own resources for purposes of collaborations. This social will stemmed from having a shared understanding of the problem at hand by the people in the CoH. In terms of the social will, people hosting meetings in their homes is similar to findings by Simo and Bies (2007) in cases following hurricane Katrina where people opened their homes to others.

Not having a designated local official to respond to alerts made in the WhatsApp groups resulted with issues reported not being attended to promptly in the CoH. This points to the need for the local authority to put structures in place on how they may effectively incorporate social media in their response systems and strategies. In Japan, national government recommended developing a framework which guided government officials on how to continue using ICT facilities during and after a disaster (Sakurai & Murayama, 2019). This could be adopted to the context of the CoH, more so to guide officials on how to effectively incorporate social media in their day-to-day operations where collaborations are concerned. This may curb the late responses to reports and enhance collaborations further.

# Chapter 8: Synthesis

# Contributions of cross-sector collaborations to Disaster Risk Reduction in the city of Harare

## 8.1. Contribution to priority 1: understanding disaster risk

Priority one of the Sendai Framework stipulates that DRM needs to be based on an understanding of disaster risk in all its dimensions of vulnerability, exposure, and hazard (UNISDR, 2015). All cross-sector collaborations occurring in the CoH demonstrate a high consideration of the context of the city, identifying vulnerability and exposure towards recurrence of water-borne diseases, food insecurity, and effects of developments on wetlands. Having three categories of drought response ensured the partial identification of risks to multiple hazards that would be exacerbated by the effects of drought. The structural configurations of most collaborations involved continual engagements and capacity building in local communities. Most collaborations also used an accessible social media platform (WhatsApp) as a reporting and communication tool. These added to the daily assessments of disaster risks in the three collaboration categories at local level. All of the collaborations involved partners from a variety of sectors in the assessment and dissemination of disaster risk information. Collaborations had multiple contributing factors and contributed substantially towards two out of 15 local level actions under priority area one (Table 14). However, the political interference in communities, low response rates on social media including the increasing prices of data may compromise the effectiveness of the contributions.

Cross-sector collaborations in the CoH partially contributed towards activities (e), (f), (g), (h), and (l) under priority one (Table in Appendix 8A). The 'Wetlands conservation and education' collaboration had a component that informed people of the risk associated with building on wetlands. However, the contribution towards incorporation of risk knowledge in education and training will be affected by barriers in wetlands management. The use of the U-reporting tool to report real time information on pipe leakages in the 'Drought resilience programme' contributed to promoting real time access to reliable data. However, the reporting tool is limited to reporting infrastructural issues. The capacity building for government officials and members in society in the use of the U-reporting tool, in addition to community peer to peer learning on livelihoods strategies and health clubs contributed to the activity on building knowledge. However, the u-reporting tool is funded by one partner in the collaboration which threatens its sustainability over time. The 'Wetlands guideline development'

collaborations contributed towards promoting and improving dialogue among technical and scientific communities through involving a diverse set of stakeholders including academia in the process. However, the centralised decision-making in the collaboration and the power imbalances may limit the extent of the contribution.

**Table 14: Substantial contributions to activity (b) and (o) under priority 1**

| Priority | Substantial contribution | Some ways collaborations are contributing (number of collaborations) | Barriers that may restrict contribution |
|---|---|---|---|
| **Priority 1:**<br><br>**Understanding disaster risk** | *"(b) To… periodically assess disaster risks, vulnerability, capacity, exposure, hazard characteristics and their possible sequential effects at the relevant social and spatial scale on ecosystems, in line with national circumstances*" (UNISDR, 2015, p. 14) | • Periodic assessment of context-based disaster risk in communities (6)<br>• Takes into consideration history and context of the city (8)<br>• Takes into consideration effects of building on wetlands (2)<br>• Have workshops to train partners on risk identification (6) | • Political interference with wetlands management<br>• Slow response rates on WhatsApp when reporting issues |
| | *"(o) To enhance collaboration among people at the local level to disseminate disaster risk information through the involvement of community-based organisations and nongovernmental organisations*." (UNISDR, 2015, p. 14) | • All collaborations involved civil society organisations (8)<br>• Makes use of social media to involve a wide range of people in communities in terms of disseminating risk information (7) | • Rising prices of data for social media use<br>• Challenges between CSOs and government<br>• Slow response times on social media |

## 8.2. Contribution to priority 2: strengthening disaster risk governance

Priority two specifies the need for coherence in national and local frameworks of laws, regulations, and public policies to guide and encourage public and private sectors to take action in addressing disaster risk (UNISDR, 2015). The nature of most activities listed under priority two were mostly to do with policy development, amendments and to mainstream disaster risk, as well as the co-ordination of government ministries in doing so (Appendix 5D). Most of the activities listed under this priority were out of scope of most of the collaborations identified in the CoH.

Collaborations could only partially contribute towards activity (a) and (g) under priority area two (Table in Appendix 8A). Only one collaboration had a component contributing towards promoting

coherence in national frameworks and laws, through addressing the inconsistencies in the legislation with respect to the management of wetlands. However, as noted in Chapter 7, the various power related barriers between CSOs and national government, partners from CSOs felt their voices were not being heard and reflected in the final guidelines. The centralised decision-making and governance processes in this collaboration ensured dominance of government sectors in the final guidelines. This is because the implementing agency in national government had the final say on what went into the guidelines. This brings to question whose views and contributions are being incorporated in the guidelines, and whether the implementation of such guidelines will be carried out effectively at local level. This is because CSOs have the most buy-in from communities due to their long-term presence in local communities. If CSOs feel that the guidelines are not reflecting their voices, the implementation of such guidelines will not be as effective without buy-in from communities.

Two collaborations had components that contributed to establishing and strengthening government co-ordination. However, the extent of this contribution is limited as power imbalance and organisational barriers meant that CSOs could not convene state actors or co-ordinate them, leading to the marginalisation of CSOs from attending meetings. In the 'Maize and cash distribution' collaboration, the strengthening of the co-ordination between national government and other sectors was not a primary purpose for the collaboration. However, it was only considered as a way to address the co-ordination barrier that existed between members from the different sectors.

## 8.3. Contribution to priority 3: investing in DRR for resilience

Priority three highlights the need for public and private investment in disaster risk prevention and reduction through structural and non-structural measures. This is in order to enhance resilience in different sectors and in communities and how these can be drivers of innovation, growth, and job creation (UNSDR, 2015). The nature of most activities listed under priority three were mostly concerned with financial investments, risk insurance, and financial and fiscal instruments in specific sectors (Appendix 5D). These aspects were not within the scope of the collaborations identified in the city.

Cross-sector collaborations could partially contribute towards activities (g), (j), (k), (n), and (p) under priority area three (Table in Appendix 8A). Two collaborations in the wetlands management category contributed towards strengthening the sustainable use and management of ecosystems. However, with political interference, the CoH having limited space for the growing population, and voices of CSOs being silenced in guideline development, people were still building on wetlands. The structural ambidexterity of the collaborations, particularly those operating in communities, have

enhanced resilience to drought in communities through monitoring wetlands and diversifying livelihoods. The 'Drought resilience programme' collaboration contributed towards livelihood enhancement and to building resilience of communities through the peer-to-peer learning in community health clubs. However, challenges with a mobile population may affect the extent of this contribution. The 'Maize and cash distribution' collaboration prioritised the chronically ill in the distribution of food during donations. However, donations are not sustainable since they are only happening for a short period and do not build resilience in communities, unlike training people to diversify livelihoods.

## 8.4. Contribution to priority 4: enhancing disaster preparedness for effective response

Priority four highlights the need for strengthened disaster preparedness for more effective response and recognising disasters as opportunities to build back better. Additionally, it highlights the need for gender equitable and universally accessible approaches during response and reconstruction phases (UNISDR, 2015). In terms of response to drought, cross-sector collaborations in the CoH were responding to turbulence in the environment and much of it was when disaster was looming. The collaborations within the water delivery and access category had components that addressed the continual provisioning of water before, during, and after disasters. Combined with the collaborations in the wetlands management category, most collaborations were ensuring the resilience of critical infrastructure. Water delivery and access collaborations were managing boreholes and reporting infrastructural issues. Wetlands management collaborations were ensuring the that wetlands remain healthy and functional. Collaborations had more contributing factors and thus substantially contributed towards activities (c) and (g) under priority area four of the Sendai Framework (Table 15).

Cross-sector collaborations partially contributed to activities (a), (b), (e), and (f) under priority action four (Table in Appendix 8A). In terms of disaster preparedness, only one collaboration had a component that made use of early warning systems. However, the purpose of the collaboration was not to develop or enhance early warning systems. Rather, the collaboration just made use of the early warning system in their response to drought. The collaborations in the strategy development category contributed towards involving a variety of stakeholders in periodic review of policies and plans. The 'Maize and cash distribution' collaboration had a specific gender equality component; however this was only in relation to deciding which vulnerable groups to provide aid to. Additionally,

the collaboration made use of volunteers in local communities, which contributed to the activity to strengthen logistical capacities to ensure better disaster response.

**Table 15: Substantial contributions towards activity (c) and (g) of priority 4**

| Priority | Substantial contribution | Some ways collaborations are contributing (number of collaborations) | Barriers that may restrict contribution |
|---|---|---|---|
| **Priority 4:**<br><br>**Enhancing disaster preparedness for effective response, and to build back better in recovery, rehabilitation, and reconstruction** | *"(c) To promote the resilience of new and existing critical infrastructure, including water… to ensure that they remain safe, effective and operational during and after disasters in order to provide live-saving and essential services"* (UNISDR, 2015, p. 20) | • Maintaining boreholes and reporting faulty pipes and leakages to ensure that safe water reaches citizens (5)<br><br>• Stewarding wetlands to ensure that they provide essential water purification during droughts (2) | • Ground water depletion<br>• Political interference<br>• Mobile population |
| | *" (g) To ensure the continuity of operations and planning, including social and economic recovery, and the provision of basic services in the post-disaster phase"* (UNISDR, 2015, p. 20) | • Providing food and money to safeguard citizens from famine (1)<br><br>• Ensuring water delivery in communities through borehole drilling and ensuring water provision (6) | • Power and politics<br>• Limited resources |

## 8.5. How can collaborations be enhanced to effectively contribute towards DRR in the CoH?

### 8.5.1. Identify key stakeholders and support

The Sendai Framework identifies different stakeholders and the role they play in implementing the framework. Understanding the role of stakeholders and linking these to the context of the city and collaboration design would be effective in making collaborations effective in contributing to DRR (UNISDR, 2015; Al-faza & Kasim, 2019). Cross-sector collaborations could align with the DCP so that access to early warning systems and other resources could be leveraged. The DCP can play a role in legitimizing collaborations through public endorsements, increasing and taking advantage of the role of political will in the CoH. Instead of treating women, children, and youth as only vulnerable

populations (Cox *et al.*, 2019) there is need to involve them as active participants in collaborations. There is need to identify key stakeholders in the community that are able to teach and carry forward lessons from capacity building engagements locally. This would avoid needing to repeat training and would build capacity in local communities such that they are not reliant on external support. Collaborations will need to identify avenues for support through applying for grants for financing.

Cross-sector collaborations in the CoH could build on the social will of the people who avail themselves. Recognising that cross-sector collaborations are not easy and putting resources in place in order to anticipate challenges and address conflict will be beneficial for future collaborations (O'Leary & Vij, 2012; Bryson *et al.,* 2015). For example, in a similar context such as Malawi, resources were allocated to make lee way for failure (ICLEI, 2018). The inception phase of collaborations should involve research on how collaborative interventions will likely be affected by the context of the city. This would ensure that the type of intervention carried out through collaboration would avoid potential maladaptive responses to disaster risk. Because cross-sector collaborations responding to disasters are often biased towards crisis management; in order to effectively use cross-sector collaborations for DRR in the context of the CoH, maximising on the use of WhatsApp and the individual pro-social behaviours would make collaborations sustainable pre and post disasters. Having risk specific approaches documented and on standby may ensure effective mobilisation in terms of monitoring risks. Finally, part of incorporating context is to recognise the role that pre-existing networks have played in collaborations so far. As such, organisations hoping to collaborate should aim to build and nurture relationships between themselves and stakeholders from other organisations.

### 8.5.2. Address structural challenges in collaborations

It is important that future cross-sector collaborations in the CoH be designed to take into consideration the challenges. They will need to follow up informal processes of agreements and goal setting with formal documentation so as to track accountability (Rein *et al.,* 2008; Bryson *et al.,* 2015; Tulder *et al.,* 2016). Additionally, they may consider weighing and aligning motivations and goals such that every member perceives some benefits for themselves and the overall collaboration (Bryson *et al.,* 2015; Tulder *et al.,* 2016). Collaborations need to identify measures to include the voices of the marginalised instead of having a tick box approach to membership (Kapucu & Hu, 2016). Each partner brings a certain skill and expertise to the collaboration, ensuring that a skills audit could bring members to value each other more and to have roles and responsibilities distributed fairly (Crosby & Bryson, 2010; O'Leary & Vij, 2012; Al-faza *et al.,* 2019).

The cross-sector collaborations responding to drought in the CoH were heavily influenced by politics and power dynamics between the organisations involved in the collaborations. The power imbalances went on to influence the relational aspects of collaborations with lack of trust between collaborations, and lack of will to listen to the voices of other members in collaborations. Collaborations that fail to consider the effects of power relations between collaborators will end up contributing to inequality and injustice within the communities (Brisbois & Loë, 2018). In order to ensure that collaborations are having the intended benefits to communities and in response to drought disasters it is important that during the planning phases of collaborations should consider the implications of one partner having power to influence the decisions made (Brisbois & Loë, 2018). Additionally collaborations could apply critical institutional approaches that consider the complexity of inter-organisational networks and value different actors, and their agency (Cleaver & De Koning, 2015).

### 8.5.3. Make use of context-based disaster risk monitoring and risk investments

Manyena (2016, p. 181) argues that, "*For Africa to effectively implement the Sendai Framework, it needs to build its own technical capacity using its own resources*". This is paramount to collaborations if they are going to effectively contribute to DRR in resource constrained African cities. Disaster risk management that fails to take a contextual approach will not be effective. Collaborations in the CoH show that they do have the ability to incorporate indigenous knowledge in DRR as they are already using such knowledge when collaborating with local communities in terms of conflict resolution at water points. As such, cross-sector collaborations may be tailored to include indigenous knowledge systems in disaster risk monitoring and assessment as recommended by UNISDR (2015). A livelihood strategy and innovation component that is specific to the context of the CoH may be added to collaborations as well. For example, some collaborations responding to drought in some parts of the CoH moved from cash injections towards livelihood strategies such as planting mushrooms, which require less water (UNOCHA, 2020). As noted in previous chapters, other studies have shown that instead of cash injections, providing food would be beneficial as the food prices increased due to high demand (Arega & Shively, 2019). Incorporating context in collaborations has the potential to ensure that these collaborations are sustained over long periods and not isolated to peak times.

# Chapter 9: Conclusion

## 9.1. Introduction

I sought to shed light on the role that cross-sector collaborations had in contributing towards DRR in resource constrained Zimbabwe, through the lens of drought response in the CoH. I set out to investigate the different cross-sector collaborations that were occurring in the CoH in response to drought. For this, I drew on a framework by Bryson et al. (2006), and their updated propositions from 2015, to understand the nature and drivers of collaborations in the CoH (objective 1). To understand the barriers to and enablers of these collaborations, I drew on a typology on barriers and enablers that I compiled from the literature for my analysis (objective 2). I conducted semi-structured interviews with 14 key informants in national government, local government, NGOs, and CSOs. Thereafter, I conducted both inductive and deductive analysis of the transcripts using NVivo Pro software. I went further to assess the overall contributions of the cross-sector collaborations to the activities listed under each of the four priority areas of the Sendai Framework (objective 3).

In this chapter, I present the overall summary and synthesis of the findings in terms of the effectiveness of cross-sector collaborations to contribute towards DRR. I start off by laying out the summary of factors that influenced cross-sector collaborations and their ability to contribute to DRR in the CoH (Figure 15). I then pull out two key messages that can assist in making collaborations more effective towards contributing to DRR. In the concluding section, I mention how the current cross sector collaborations could be enhanced to better contribute to DRR following this study and make suggestions for future research.

## 9.2. Under which conditions do cross-sector collaborations contribute towards DRR in Harare?

In Figure 15 below, I present a summary of factors that were influencing the potential for cross-sector collaborations related to drought in the CoH to contribute towards DRR. I present this summary as an adaptation of the framework to understand cross-sector collaborations by Bryson et al. (2006). I then consider a set of key messages that emerged from my results in relation to these factors and relate the findings to the analytical frameworks used in this study.

### 9.2.1. Understanding the disaster in the context of the city

***Key message 1: Cross-sector collaborations are likely to contribute towards DRR at the local level when they understand how the disaster is affecting the city and incorporate that in the nature of their response.***

Contribution to DRR relies on performing adequate disaster risk assessment to ensure holistic disaster response. The cross-sector collaborations responding to drought in the CoH were founded upon an understanding of how drought affected the city through recognising turbulence in the general environment and single sector inadequacies (a in Figure 15). This resulted in cross-sector collaborations within three categories based on the areas that were perceived to be most affected by drought. These were, i) water delivery and access, ii) food security, and iii) wetlands management (Figure 13 in results section).

Effective contribution to DRR through cross-sector collaborations requires stakeholder engagement between various sectors in society. Understanding the extent to which the disaster would affect the city ensures the identification of key stakeholders in different sectors affected by the disaster. In the CoH, identification of key stakeholders and agreement on the problem enabled the formation of collaborations responding to drought. This was necessary to ensure sharing of information, resources, and division of labour while conducting DRR related activities (b and c).

Effective contribution to DRR through cross-sector collaborations also depends on the processes and activities being carried out in response to the disaster. Understanding the effects of a drought disaster in the city can inform the activities, processes, and structures of collaborations to ensure DRR (b and c). This would be made effective by aligning activities of collaborations with the activities listed under the four priority areas of the Sendai Framework. In the CoH, shortcomings in terms of aligning activities of collaborations to those listed under the priority areas of the Sendai Framework meant that collaborations would substantially fulfil very few of the activities (g). Another shortcoming with collaborations in the CoH was the inability to select sustainable response strategies specific to the effects of drought in the city. For example, collaborations responding to drought using borehole sinking methods were affected by the lack of groundwater recharge due to lack of rain and could be maladaptive in the long term (f and g).

### 9.2.2. Designing collaborations specific to the context of the city

***Key message 2: Cross-sector collaborations are likely to contribute towards DRR to slow-onset disasters at local level when they are designed in a way that considers the social, political, economic, and environmental context in which they will be operating.***

Cross-sector collaborations responding to drought in the CoH were affected by the social, political, economic, and environmental context (d and e). This highlights that the level to which cross-sector collaborations can make an impact relies on their ability to navigate conditions specific to the context in which the collaborations will be applied. Slow-onset disasters provide extended periods of preparation for proactive responses and provide more time to act. In order to ensure that cross-sector collaborations are effective they need to take into consideration such contextual factors in the pre-disaster and non-peak phases. This includes designing collaborations to have processes and structures that recognise the context of the city.

Cross-sector collaborations need to engage on the level that is acceptable in the society they are operating in. Likewise, the processes of collaborations also need to be adjusted to take advantage of the enablers that work in the context of the city in which they are operating. For example, in the CoH, understanding the value placed on pre-existing relationships between organisations led to a process of selection of members that knew each other, which helped with building trust, and legitimacy (b and c). The use of the widely accessible social media platform, WhatsApp also acted as an enhancer to various collaborations by maintaining communication and supporting co-ordination (e). Taking advantage of the social context in terms of social and political will, by having meetings in people's homes and having public endorsements by politicians enabled the collaborations in the CoH to build legitimacy and trust in communities. This then ensured effective engagements with community members for DRR activities (f).

Cross-sector collaborations responding to slow-onset disasters will need to be flexible in order to adapt their structures to overcome barriers in the city over time. Cross-sector collaborations in the CoH had collaborations occurring at various levels, including in communities and this contributed to sensitisation of community members to DRR issues (g). However, shortcomings in terms of understanding the social fabric meant that some collaborations neglected to factor in the effects of a highly mobile urban population when selecting water point management committees (g). Poor flexibility in structure and processes in terms of navigating a challenging macro-economic environment and in some cases a politically polarised society affected the extent to which

collaborations would operate in local communities in the CoH (f and g). This highlights how collaborations need to be structurally flexible so as to easily adapt to the city they are being applied.

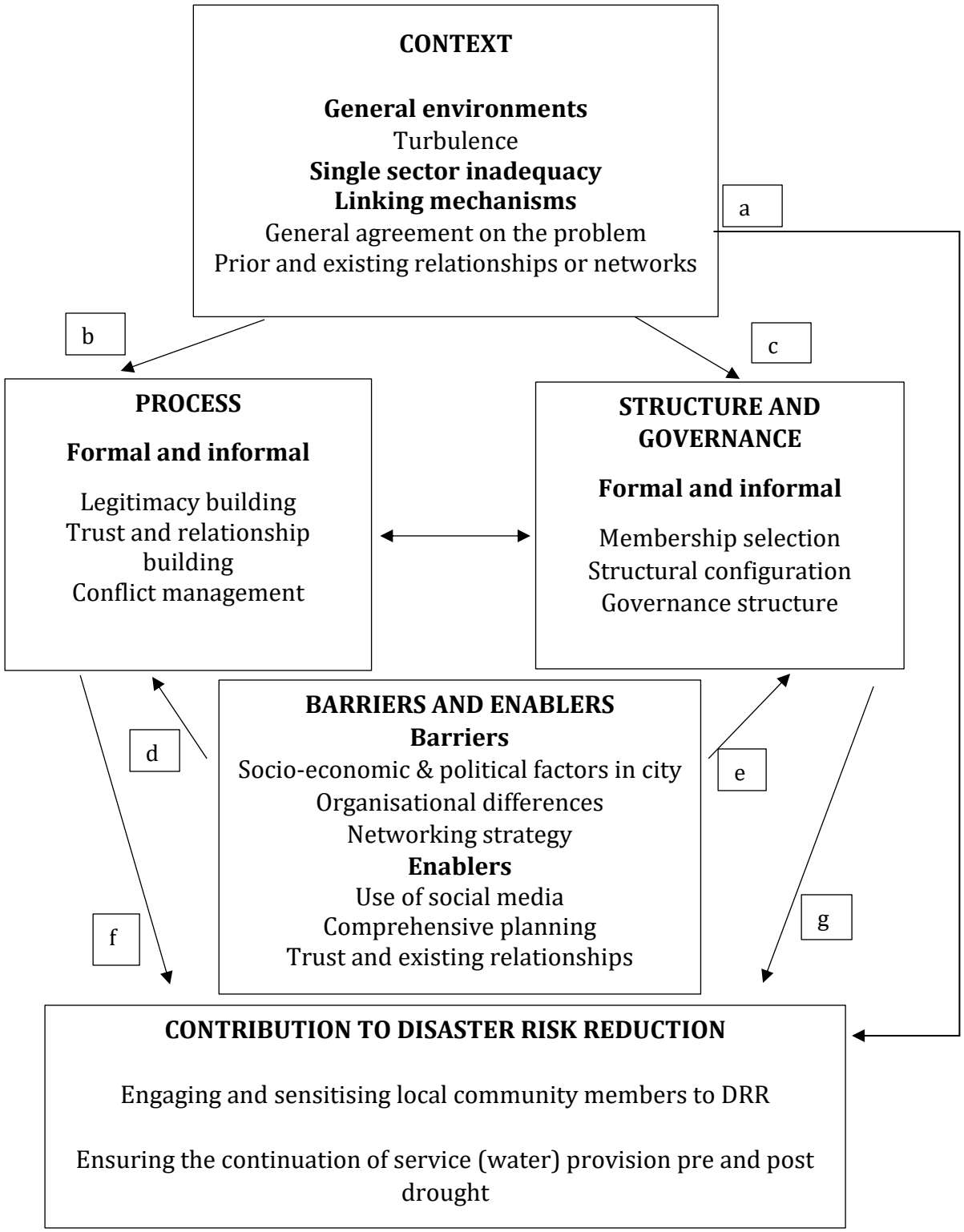


**Figure 15: Summary of factors influencing the potential of cross-sector collaborations to contribute to DRR in the CoH (an adaption from Bryson et al. (2006)).**

## 9.3. Conclusion and future research

In this study I have shown how complex cross-sector collaborations responding to drought are in the CoH. This would likely be the case in most African cities with similar political, social, and economic profiles. The findings in this thesis showed the usefulness of applying the Bryson et al. (2006) framework to understand cross-sector collaborations and in finding ways to improve their effectiveness. In Figure15 above, I presented the factors influencing the potential of cross-sector collaborations to contribute towards DRR. The adapted framework aligns with the original framework and echoes the propositions presented by Bryson et al. (2015). In terms of the initial conditions, collaborations in the CoH were formed in response to turbulence in the environment, sector failure, and due to the presence of one or more linking mechanism (a). Following the context of the CoH, cross-sector collaborations, placed so much emphasis on the pre-existing or previous working experiences in initial phases of collaborations. These were used to assess initial trustworthiness, membership, and legitimacy building (b). The strategic purpose of collaborations in the CoH influenced structural components such as membership, structural configurations, and governance (c).

Cross-sector collaborations in the CoH showed similar barriers and enablers to those highlighted in the literature with some differences in the way the barriers manifested within the context of the CoH. In terms of barriers, while the literature identified financial constraints, in the CoH these were more informed by the macro-economic environment and not limited to funding issues as we would normally find. The table developed for the analysis of enablers for collaborations changed immensely when adapted to the enablers of collaborations in the CoH. The key difference was that the use of social media in monitoring collaboration activities and in making collaborations inclusive to various members in society. This highlights the ability of collaborations to be innovative and provides an opportunity to ensure the sustainability of collaborations during non-peak stages of disasters, which is key when responding to slow-onset disasters. These barriers and enablers influenced the processes and structure (d and e) of collaborations and ultimately, the outcomes (f and g) in terms of their contribution to DRR.

While there were some challenges regarding the effectiveness of the cross-sector collaborations responding to drought in the CoH, all of them demonstrated high levels of disaster risk identification and could substantially contribute towards some of the activities in priority areas one and four of the Sendai Framework. All collaborations were contributing to identifying and monitoring multiple disaster risks in the CoH. Most activities listed under the four priorities of the Sendai Framework

were very specific to some sectors which were out of scope of the activities that the collaborations in the CoH were doing on the ground. While collaborations in the CoH had not been designed to fulfil the specific activities under the four priority areas of the Sendai Framework, having some of their activities contribute to the activities listed under the priority areas is commendable.

At this point in time, there is potential for the selected cross-sector collaborations to contribute towards effective DRR at the local level. However, the collaborations could potentially contribute to even more activities of the four priorities if they are enhanced and designed with the context of the CoH and with disaster risk management in mind. Such enhancements could include addressing the partnership challenges which have been affecting collaborations, ensuring that they maximise on the enablers of collaborations, and anticipate challenges. Cross-sector collaborations could also be enhanced through involving all key stakeholders and identifying financial and political support within the context of the city. Cross-sector collaborations in the CoH will need to be structured in a way that uses locally innovated ways to build and sustain relationships and address power imbalances between members. Finally, cross-sector collaborations could be enhanced through taking a context-based approach at risk identification and response, which may include making use of indigenous knowledge systems in identifying risks and responses.

Response to drought through cross-sector collaborations in the CoH has emphasised the need for a contextual approach to both collaborations and drought response. In politically polarised societies, typified by the CoH in this study, further research could look into the effects of political polarisation, and corruption in cross-sector collaborations responding to disasters. Further studies could investigate how the use of social media may be better mainstreamed in cross-sector collaborations responding to drought in African city contexts. Additionally, studies could investigate other local innovations for establishing and maintaining collaborations in addition to social media. Since time limitations were a factor in this study, further research would benefit from the researcher being engaged and embedded in the collaborations for a longer period and make use of various data collection methods such as observation and focus group discussions to triangulate the findings. Finally, since multiple disasters may occur simultaneously, cross-sector collaborations need to be investigated through the lens of multiple disasters at national and regional levels in implementing the Sendai Framework.

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# Appendices

## Appendix 3A: Revised propositions from Bryson et al. (2015)

| Component | Propositions |
|---|---|
| **Address Initial Conditions** | Proposition 1: Similar to all interorganizational relationships, cross-sector collaborations are more likely to form in turbulent environments. In particular, the formation and sustainability of cross-sector collaborations will be affected by driving and constraining forces in their competitive and institutional environments, including political forces and the availability of relevant technology.<br><br>Proposition 2: Public policy makers are most likely to try cross-sector collaboration if they believe that separate efforts by several sectors to address a public problem have failed, or are likely to fail, and the actual failures cannot be fixed by a separate sector alone, or, less dramatically, that no sector can address the presenting problem effectively on its own.<br><br>Proposition 3: Cross-sector collaborations are more likely to succeed when one or more linking mechanisms—such as powerful leaders and sponsors; general agreement on the problem; existing networks; neutral conveners; requests for proposals, plans, projects or technologies requiring collaboration; and consequential incentives favouring collaboration—are in place at the time of their initial formation. |
| **Design Effective Processes** | Proposition 4: The form and content of a collaboration's initial agreements, as well as the processes used to formulate them, will affect the outcomes of the collaboration's work. A sequence of increasingly operational agreements involving key decision makers, a certain degree of flexibility, and re-negotiability are likely to be important elements of the agreement process.<br><br>Proposition 5: Cross-sector collaborations are more likely to succeed if they have committed, able sponsors and effective, persistent champions at many levels who provide formal and informal leadership.<br><br>Proposition 6: Cross-sector collaborations are more likely to succeed if they establish with both internal and external stakeholders the legitimacy of collaboration as a necessary form of organizing, as a separate entity, and as a source of trusted interaction among members.<br><br>Proposition 7: Cross-sector collaborations are more likely to succeed if a continuing virtuous circle of trust-building activities (including nurturing of cross-sectoral and cross-cultural understanding) can be established and maintained. |

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| | Proposition 8: Because conflict is common in partnerships, cross-sector collaborations are more likely to succeed if partners use resources and tactics to help equalize power and manage conflict, particularly in the early phases of planning and organizing the work to be done.<br><br>Proposition 9: Cross-sector collaborations are more likely to succeed if they use a combination of deliberate and emergent planning, with deliberate planning emphasized more in mandated collaborations and emergent planning emphasized more in nonmandated collaborations. At some point, however, emergent planning needs to be followed by formalization; too much emergent planning can undermine collaboration success.<br><br>Proposition 10: Cross-sector collaborations are more likely to succeed if their planning makes use of stakeholder analyses, emphasizes responsiveness to key stakeholders, uses the process to build trust and the capacity to manage conflict, and builds on the competencies and distinctive competencies of the collaborators.<br><br>Proposition 11: Inclusive processes are needed to produce inclusive structures that, in turn, foster inclusive practices. Both inclusive processes and structures facilitate effective collaboration. (Proposition 12 has been moved to a different category and will be found below proposition 18.) |
| **Create Effective Structural and Governance Arrangements** | Proposition 13: Collaborative structure is influenced by environmental factors, such as system stability and the collaboration's strategic purpose; structures must be able to handle changes in the environment and strategic purpose.<br><br>Proposition 14: Collaborative structure is also likely to change over time due to ambiguity of membership and complexity in local environments.<br><br>Proposition 15: Collaboration structure and the nature of the tasks to be performed at various levels, including the client or street level, are likely to influence a collaboration's overall effectiveness; a measure of structural ambidexterity is likely to be necessary to manage the array of tasks.<br><br>Proposition 16: Governing arrangements, including those that operate at both informal and formal levels, must be able to respond effectively to strategic, operational, and mixed issues and the extent to which they do is likely to influence collaboration effectiveness. This responsiveness is needed in part to decide who gets to decide and to be able to manage spatial and temporal ambidexterity |

## Appendix 5A: Project information sheet

**DEPARTMENT OF ENVIRONMENTAL AND GEOGRAPHICAL SCIENCES - AFRICAN CLIMATE AND DEVELOPMENT INITIATIVE (ACDI)**

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**Project Title:** Cross-sector collaboration efforts in response to drought in the city of Harare

**Research contribution:** This study hopes to contribute toward understanding how cross-sector collaboration can effectively contribute to resilience and disaster preparedness to climate extreme events.

**Project aim:** To investigate the cross-sector collaboration efforts occurring in the city of Harare in response to drought.

### Objectives:

- To identify and unpack the nature and drivers of cross-sector collaboration occurring in response to drought.
- To evaluate the formal and informal processes followed in the cross-sector collaboration in response to drought.
- To explore the barriers, enablers, and lessons from cross-sector collaboration in response to drought in the city.

### Data collection:

- In-person engagement will be conducted with organisations that are part of cross-sector collaborations that contribute towards response to drought. These engagements will include actor mapping exercises, timeline mapping exercises and semi-structured interviews.
- In some cases were cross-sector collaborations are actively taking place, the researcher might want to observe the collaboration and write notes.
- Follow up data collection will be conducted remotely based on the preferences of the organisation, some will be conducted via telephone/skype calls and others through specific surveys or emails.
-

## Appendix 5B: Semi structured interview guide

| Question | Contribution to the study |
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| **Preparation:**<br>• Research on the organisation and the role of the person that I will be interviewing.<br>• For information keeping, I recorded the number of years that the interviewee has been involved in the collaboration as well.<br>• I did a bit of background research on the collaboration beforehand | |
| 1. **What motivated the start of this cross-sector collaboration?**<br><br>- What led to the formation of this collaboration?<br>- What issues were/are you trying to address through this collaboration?<br>- As an organisation do you feel capacitated to be part of this collaboration?<br>- As an organisation, what would you like to get from the collaboration? | • To identify conditions under which organisations in different sectors are choosing to collaborate with other organisations.<br>• To identify the issues around which organisations in different organisations are collaborating about.<br><br>[Objective 1] |
| 2. **How has the collaboration been sustained over the years and recurring droughts?**<br><br>- Why is it that you started collaborating around this issue when you did?<br>- What other factors contributed towards your organisation choosing to collaborate around this issue? (mandate, etc)<br>- How has your department ensured that they continue to be part of the collaboration over the years?<br>- How do you as a LG/NGO/CBO contribute towards the sustainability of the collaboration itself?<br>- How was the collaboration sustained in-between drought periods?<br>- What strategies have you (the collaboration as a whole) put in place to make sure that the collaboration keeps going?<br>- How do you think the collaboration could be sustained in the years to come? | • To understand the factors contributing to the sustainability of the collaboration<br>• To understand the barriers and enablers to the sustainability of the collaboration<br><br>[Objective 1 & 3] |
| 3. **What conditions and linking mechanisms contributed to the membership of the collaboration?**<br><br>- How did you go about selecting the organisations that are involved in the collaboration, and why?<br>- Did previous working experience with other organisations paved the way for collaboration in this sense, i.e. how have | • To understand the formal and informal processes contributing to the membership selection for cross-sector collaboration.<br><br>• To understand the barriers and enablers of the processes involved in |

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| pre-existing relationships contributed towards membership in this collaboration?<br>- Do you think each organisation in this collaboration has the capacity to do what they are required to do as part of this collaboration, and why?<br>- Which organisations do you think should have been involved and why?<br>- From the organisations involved, have you added or removed other organisations, and why? | selecting members on the collaboration.<br><br>[Objective 2 & 3] |
| 4. **How has the collaboration sourced and secured funding?**<br><br>- Do you have a funder for this collaboration?<br>- When did you start receiving funding for this collaboration?<br>- How has funding contributed towards the collaboration (+/)?<br>- Are there any conditions you need to fulfil in order to access this funding?<br>- How often do you receive/ source funding for this collaboration i.e. how consistent is this funding?<br>- What barriers have you come across due to sourcing funds the way that you do?<br>- How has funding enabled the collaboration?<br>- In what way has funding been a barrier to collaboration | • To understand the role of funding on the formation and sustainability of the collaboration.<br>• To understand the effects of funding on the sustainability of the collaboration.<br><br>[Objective 1, 2, & 3] |
| 5. **How has the collaboration been structured?**<br><br>- Was there an agreement at the beginning of this collaboration, in terms of the aims, objectives, and goals?<br>- Have these goals and objectives been constant, or have they changed over time?<br>- How did you develop this agreement if available/ if no do you think an agreement was going to help in any way?<br>- Do you think all organisations in the collaboration understand what you are working towards, why?<br>- How do you divide responsibilities among the organisations involved and why?<br>- Who is leading the collaboration? / what roles do each organisation have and why?<br>- What responsibilities does the leader have?<br>- How often do you meet?<br>- Do you think the processes and structure of this collaboration are the best way?<br>- Would you have wanted to collaborate in a different way? What would you change and what would you keep the same? | • To identify the formal and informal structure of the collaboration<br><br>• To identify the barriers and enablers of the structure of the collaboration.<br><br>[Objective 1, 2, & 3] |

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| 6. **How do you ensure that each organisation in the collaboration has a shared understanding of the problem at hand?**<br><br>- How do you communicate with the organisations involved to ensure that information is accessed and understood by all members of the collaboration?<br>- What formal and informal platforms do you use for communication in the collaboration?<br>- How have these communication strategies enabled good collaboration among organisations?<br>- How have these communication strategies hindered good collaboration? | • To understand the formal and informal communication processes and how they affect the collaboration.<br>• To identify the barriers and enablers of the communication processes currently in place.<br><br>[Objective 2 & 3] |
| 7. **How do you make decisions in the collaboration, and why?**<br><br>- Does decision making occur through regular meetings with members/ informal frequent meetings?<br>- Do you have to vote for a decision to be made?<br>- Does the lead organisation make the final decision after consulting with everyone in the collaboration?<br>- Do you think this decision-making process has been effective in terms of contributing to the overall collaboration and ensuring that every party is included?<br>- How do you think the decision-making process could be done to be inclusive and contributing to the overall effectiveness of the collaboration | • To understand the process of decision making in the collaboration.<br>• To understand how power dynamics are neutralised to ensure inclusive decision making<br>• To understand the barriers and enablers of the decision-making process in ensuring an inclusive collaboration.<br><br>[Objective 2 & 3] |
| 8. **How do you ensure that each organisation is fulfilling its responsibilities as part of the collaboration, and why?**<br><br>- Do you think there is trust between the organisations collaborating, why? How did you build trust among one another?<br>- What do you think has been a challenge in building trust and ensuring that organisations are committed?<br>- What do you think has helped in building trust between organisations and making sure that they are committed to the cause? | • This will contribute towards trust and commitment of the organisations involved in the collaboration<br>• To understand the barriers and enablers of trust and commitment building in the collaboration and how these affect the collaboration as a whole<br><br>[Objective 2 & 3] |
| 9. **How are conflicts and misunderstandings addressed/ managed?**<br><br>Do you have a committee designated/ who is responsible for managing conflict in the collaboration, and why? | • Will contribute towards understanding the process of conflict management and the barriers and enablers of the collaboration to conflict management. |

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| Do you have an example of how you think the collaboration managed conflict well?<br>What do you think have been the barriers to managing conflict effectively?<br>What do you think have been the enablers to managing conflict effectively? | [Objective 3] |
| 10. **What lessons have you learnt about being part of or leading a cross-sector collaboration?**<br><br>- What advice would you give other organisations in your sector before they become part of a cross-sector collaboration?<br>- What seems to be the barriers to effective collaboration amongst different sectors?<br>- What would you say is the enabler for collaboration?<br>- Would you say this has been a successful collaboration, why? | • Will contribute towards understanding the overall barriers and enablers to collaboration as well as the perception of collaboration success.<br><br>[Objective 3] |

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# Appendix 5C: Informed Voluntary Consent to Participate in Research Study

**Project Title:** Cross-sector collaboration efforts in response to drought disasters in the city of Harare

**Invitation to participate, and benefits:** You are invited to participate in a research study conducted with multiple stakeholders in the city of Harare. The study aims to investigate the cross-sector collaboration efforts occurring in Harare and how these are occurring in response to drought. I believe that your experience would be a valuable source of information, and hope that by participating you may gain useful knowledge.

**Procedures:** During this study, you will be asked to give information about the cross-sector collaboration efforts you have attended in response to drought.

**Recording:** I would like to record audio as part of the study. If you object to this, please indicate this below.

**Risks:** There are no potentially harmful risks related to your participation in this study.

**Disclaimer/Withdrawal:** Your participation is completely voluntary; you may refuse to participate, and you may withdraw at any time without having to state a reason and without any prejudice or penalty against you. Should you choose to withdraw, the researcher commits not to use any of the information you have provided without your signed consent. Note that the researcher may also withdraw you from the study at any time.

**Confidentiality**: Only your organisational affiliation will be identified, all other information collected in this study e.g. names, will be kept private. Confidentiality and anonymity will be maintained as pseudonyms will be used.

**What signing this form means:**

By signing this consent form, you agree to participate in this research study. The aim, procedures to be used, as well as the potential risks and benefits of your participation have been explained verbally to you in detail, using this form. Refusal to participate in or withdrawal from this study at any time will have no effect on you in any way. You are free to contact me, to ask questions or request further information, at any time during this research.

I agree to participate in this research (tick one box) ☐ Yes ☐ No _____ (Initials)

I agree to be audio-recorded (tick box) ☐ Yes ☐ No _____ (Initials)

I agree to the use of properly anonymized audio recordings in publications for research purposes (tick box) ☐ Yes ☐ No _____ (Initials)

_____ _____ _____

Name of Participant Signature of Participant Date

**Appendix 5D: National and local activities under the four priorities of the Sendai Framework of Disaster Risk Reduction (UNSDR, 2015)**

Priority 1:

Policies and practices for disaster risk management should be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment. Such knowledge can be leveraged for the purpose of pre-disaster risk assessment, for prevention and mitigation and for the development and implementation of appropriate preparedness and effective response to disasters

(a) To promote the collection, analysis, management and use of relevant data and practical information and ensure its dissemination, taking into account the needs of different categories of users, as appropriate;
(b) To encourage the use of and strengthening of baselines and periodically assess disaster risks, vulnerability, capacity, exposure, hazard characteristics and their possible sequential effects at the relevant social and spatial scale on ecosystems, in line with national circumstances
(c) To develop, periodically update and disseminate, as appropriate, location-based disaster risk information, including risk maps, to decision makers, the general public and communities at risk of exposure to disaster in an appropriate format by using, as applicable, geospatial information technology;
(d) To systematically evaluate, record, share and publicly account for disaster losses and understand the economic, social, health, education, environmental and cultural heritage impacts, as appropriate, in the context of event-specific hazard-exposure and vulnerability information;
(e) To make non-sensitive hazard-exposure, vulnerability, risk, disaster and loss-disaggregated information freely available and accessible, as appropriate;
(f) To promote real time access to reliable data, make use of space and in situ information, including geographic information systems (GIS), and use information and communications technology innovations to enhance measurement tools and the collection, analysis and dissemination of data;
(g) To build the knowledge of government officials at all levels, civil society, communities and volunteers, as well as the private sector, through sharing experiences, lessons learned, good practices and training and education on disaster risk reduction, including the use of existing training and education mechanisms and peer learning;
(h) To promote and improve dialogue and cooperation among scientific and technological communities, other relevant stakeholders and policymakers in order to facilitate a science- policy interface for effective decision-making in disaster risk management;
(i) To ensure the use of traditional, indigenous and local knowledge and practices, as appropriate, to complement scientific knowledge in disaster risk assessment and the development and implementation of policies, strategies, plans and programmes of specific sectors, with a cross-sectoral approach, which should be tailored to localities and to the context;
(j) To strengthen technical and scientific capacity to capitalize on and consolidate existing knowledge and to develop and apply methodologies and models to assess disaster risks, vulnerabilities and exposure to all hazards;
(k) To promote investments in innovation and technology development in long-term, multi- hazard and solution-driven research in disaster risk management to address gaps, obstacles, interdependencies and social, economic, educational and environmental challenges and disaster risks;
(l) To promote the incorporation of disaster risk knowledge, including disaster prevention, mitigation, preparedness, response, recovery and rehabilitation, in formal and non-formal education, as well as in civic education at all levels, as well as in professional education and training;

(m) To promote national strategies to strengthen public education and awareness in disaster risk reduction, including disaster risk information and knowledge, through campaigns, social media and community mobilization, taking into account specific audiences and their needs;
(n) To apply risk information in all its dimensions of vulnerability, capacity and exposure of persons, communities, countries and assets, as well as hazard characteristics, to develop and implement disaster risk reduction policies;
(o) To enhance collaboration among people at the local level to disseminate disaster risk information through the involvement of community-based organizations and non- governmental organizations.

Priority 2

Disaster risk governance at the national, regional and global levels is of great importance for an effective and efficient management of disaster risk. Clear vision, plans, competence, guidance and coordination within and across sectors, as well as participation of relevant stakeholders, are needed. Strengthening disaster risk governance for prevention, mitigation, preparedness, response, recovery and rehabilitation is therefore necessary and fosters collaboration and partnership across mechanisms and institutions for the implementation of instruments relevant to disaster risk reduction and sustainable development.

(a) To mainstream and integrate disaster risk reduction within and across all sectors and review and promote the coherence and further development, as appropriate, of national and local frameworks of laws, regulations and public policies, which, by defining roles and responsibilities, guide the public and private sectors in:

  (i) addressing disaster risk in publically owned, managed or regulated services and infrastructures;
  (ii) promoting and providing incentives, as relevant, for actions by persons, households, communities and businesses;
  (iii) enhancing relevant mechanisms and initiatives for disaster risk transparency, which may include financial incentives, public awareness-raising and training initiatives, reporting requirements and legal and administrative measures; and
  (iv) putting in place coordination and organizational structures;

(b) To adopt and implement national and local disaster risk reduction strategies and plans, across different timescales, with targets, indicators and time frames, aimed at preventing the creation of risk, the reduction of existing risk and the strengthening of economic, social, health and environmental resilience;
(c) To carry out an assessment of the technical, financial and administrative disaster risk management capacity to deal with the identified risks at the local and national levels;
(d) To encourage the establishment of necessary mechanisms and incentives to ensure high levels of compliance with the existing safety-enhancing provisions of sectoral laws and regulations, including those addressing land use and urban planning, building codes, environmental and resource management and health and safety standards, and update them, where needed, to ensure an adequate focus on disaster risk management;
(e) To develop and strengthen, as appropriate, mechanisms to follow up, periodically assess and publicly report on progress on national and local plans; and promote public scrutiny and encourage institutional debates, including by parliamentarians and other relevant officials, on progress reports of local and national plans for disaster risk reduction;
(f) To assign, as appropriate, clear roles and tasks to community representatives within disaster risk management institutions and processes and decision-making through relevant legal frameworks, and undertake comprehensive public and community consultations during the development of such laws and regulations to support their implementation;

(g) To establish and strengthen government coordination forums composed of relevant stakeholders at the national and local levels, such as national and local platforms for disaster risk reduction, and a designated national focal point for implementing the Sendai Framework for Disaster Risk Reduction 2015–2030. It is necessary for such mechanisms to have a strong foundation in national institutional frameworks with clearly assigned responsibilities and authority to, inter alia, identify sectoral and multisectoral disaster risk, build awareness and knowledge of disaster risk through sharing and dissemination of non-sensitive disaster risk information and data, contribute to and coordinate reports on local and national disaster risk, coordinate public awareness campaigns on disaster risk, facilitate and support local multisectoral cooperation (e.g. among local governments) and contribute to the determination of and reporting on national and local disaster risk management plans and all policies relevant for disaster risk management. These responsibilities should be established through laws, regulations, standards and procedures;

(h) To empower local authorities, as appropriate, through regulatory and financial means to work and coordinate with civil society, communities and indigenous peoples and migrants in disaster risk management at the local level;

(i) To encourage parliamentarians to support the implementation of disaster risk reduction by developing new or amending relevant legislation and setting budget allocations;

(j) To promote the development of quality standards, such as certifications and awards for disaster risk management, with the participation of the private sector, civil society, professional associations, scientific organizations and the United Nations;

(k) To formulate public policies, where applicable, aimed at addressing the issues of prevention or relocation, where possible, of human settlements in disaster risk-prone zones, subject to national law and legal systems.

Priority 3

Public and private investment in disaster risk prevention and reduction through structural and non-structural measures are essential to enhance the economic, social, health and cultural resilience of persons, communities, countries and their assets, as well as the environment. These can be drivers of innovation, growth and job creation. Such measures are cost-effective and instrumental to save lives, prevent and reduce losses and ensure effective recovery and rehabilitation.

(a) To allocate the necessary resources, including finance and logistics, as appropriate, at all levels of administration for the development and the implementation of disaster risk reduction strategies, policies, plans, laws and regulations in all relevant sectors;

(b) To promote mechanisms for disaster risk transfer and insurance, risk-sharing and retention and financial protection, as appropriate, for both public and private investment in order to reduce the financial impact of disasters on Governments and societies, in urban and rural areas;

(c) To strengthen, as appropriate, disaster-resilient public and private investments, particularly through structural, non-structural and functional disaster risk prevention and reduction measures in critical facilities, in particular schools and hospitals and physical infrastructures; building better from the start to withstand hazards through proper design and construction, including the use of the principles of universal design and the standardization of building materials; retrofitting and rebuilding; nurturing a culture of maintenance; and taking into account economic, social, structural, technological and environmental impact assessments;

(d) To protect or support the protection of cultural and collecting institutions and other sites of historical, cultural heritage and religious interest;

(e) To promote the disaster risk resilience of workplaces through structural and non-structural measures;

(f) To promote the mainstreaming of disaster risk assessments into land-use policy development and implementation, including urban planning, land degradation assessments and informal and non-

permanent housing, and the use of guidelines and follow-up tools informed by anticipated demographic and environmental changes;

(g) To promote the mainstreaming of disaster risk assessment, mapping and management into rural development planning and management of, inter alia, mountains, rivers, coastal flood plain areas, drylands, wetlands and all other areas prone to droughts and flooding, including through the identification of areas that are safe for human settlement, and at the same time preserving ecosystem functions that help to reduce risks;

(h) To encourage the revision of existing or the development of new building codes and standards and rehabilitation and reconstruction practices at the national or local levels, as appropriate, with the aim of making them more applicable within the local context, particularly in informal and marginal human settlements, and reinforce the capacity to implement, survey and enforce such codes through an appropriate approach, with a view to fostering disaster-resistant structures;

(i) To enhance the resilience of national health systems, including by integrating disaster risk management into primary, secondary and tertiary health care, especially at the local level; developing the capacity of health workers in understanding disaster risk and applying and implementing disaster risk reduction approaches in health work; promoting and enhancing the training capacities in the field of disaster medicine; and supporting and training community health groups in disaster risk reduction approaches in health programmes, in collaboration with other sectors, as well as in the implementation of the International Health Regulations (2005) of the World Health Organization;

(j) To strengthen the design and implementation of inclusive policies and social safety-net mechanisms, including through community involvement, integrated with livelihood enhancement programmes, and access to basic health-care services, including maternal, newborn and child health, sexual and reproductive health, food security and nutrition, housing and education, towards the eradication of poverty, to find durable solutions in the post-disaster phase and to empower and assist people disproportionately affected by disasters;

(k) People with life-threatening and chronic disease, due to their particular needs, should be included in the design of policies and plans to manage their risks before, during and after disasters, including having access to life-saving services;

(l) To encourage the adoption of policies and programmes addressing disaster-induced human mobility to strengthen the resilience of affected people and that of host communities, in accordance with national laws and circumstances;

(m) To promote, as appropriate, the integration of disaster risk reduction considerations and measures in financial and fiscal instruments;

(n) To strengthen the sustainable use and management of ecosystems and implement integrated environmental and natural resource management approaches that incorporate disaster risk reduction;

(o) To increase business resilience and protection of livelihoods and productive assets throughout the supply chains, ensure continuity of services and integrate disaster risk management into business models and practices;

(p) To strengthen the protection of livelihoods and productive assets, including livestock, working animals, tools and seeds;

(q) To promote and integrate disaster risk management approaches throughout the tourism industry, given the often heavy reliance on tourism as a key economic driver.

Priority 4:

"The steady growth of disaster risk, including the increase of people and assets exposure, combined with the lessons learned from past disasters, indicates the need to further strengthen disaster preparedness for response, take action in anticipation of events, integrate disaster risk reduction in response preparedness and ensure that capacities are in place for effective response and recovery at all levels. Empowering women and persons with disabilities to publicly lead and promote gender equitable and universally accessible response, recovery, rehabilitation and reconstruction approaches is key. Disasters have demonstrated that

the recovery, rehabilitation and reconstruction phase, which needs to be prepared ahead of a disaster, is a critical opportunity to "Build Back Better", including through integrating disaster risk reduction into development measures, making nations and communities resilient to disasters."

(a) To prepare or review and periodically update disaster preparedness and contingency policies, plans and programmes with the involvement of the relevant institutions, considering climate change scenarios and their impact on disaster risk, and facilitating, as appropriate, the participation of all sectors and relevant stakeholders;
(b) To invest in, develop, maintain and strengthen people-centred multi-hazard, multisectoral forecasting and early warning systems, disaster risk and emergency communications mechanisms, social technologies and hazard-monitoring telecommunications systems; develop such systems through a participatory process; tailor them to the needs of users, including social and cultural requirements, in particular gender; promote the application of simple and low-cost early warning equipment and facilities; and broaden release channels for natural disaster early warning information;
(c) To promote the resilience of new and existing critical infrastructure, including water, transportation and telecommunications infrastructure, educational facilities, hospitals and other health facilities, to ensure that they remain safe, effective and operational during and after disasters in order to provide live-saving and essential services;
(d) To establish community centres for the promotion of public awareness and the stockpiling of necessary materials to implement rescue and relief activities;
(e) To adopt public policies and actions that support the role of public service workers to establish or strengthen coordination and funding mechanisms and procedures for relief assistance and plan and prepare for post-disaster recovery and reconstruction;
(f) To train the existing workforce and voluntary workers in disaster response and strengthen technical and logistical capacities to ensure better response in emergencies;
(g) To ensure the continuity of operations and planning, including social and economic recovery, and the provision of basic services in the post-disaster phase;
(h) To promote regular disaster preparedness, response and recovery exercises, including evacuation drills, training and the establishment of area-based support systems, with a view to ensuring rapid and effective response to disasters and related displacement, including access to safe shelter, essential food and non-food relief supplies, as appropriate to local needs;
(i) To promote the cooperation of diverse institutions, multiple authorities and related stakeholders at all levels, including affected communities and business, in view of the complex and costly nature of post-disaster reconstruction, under the coordination of national authorities;
(j) To promote the incorporation of disaster risk management into post-disaster recovery and rehabilitation processes, facilitate the link between relief, rehabilitation and development, use opportunities during the recovery phase to develop capacities that reduce disaster risk in the short, medium and long term, including through the development of measures such as land-use planning, structural standards improvement and the sharing of expertise, knowledge, post-disaster reviews and lessons learned and integrate post-disaster reconstruction into the economic and social sustainable development of affected areas. This should also apply to temporary settlements for persons displaced by disasters;
(k) To develop guidance for preparedness for disaster reconstruction, such as on land-use planning and structural standards improvement, including by learning from the recovery and reconstruction programmes over the decade since the adoption of the Hyogo Framework for Action, and exchanging experiences, knowledge and lessons learned;
(l) To consider the relocation of public facilities and infrastructures to areas outside the risk range, wherever possible, in the post-disaster reconstruction process, in consultation with the people concerned, as appropriate;
(m) To strengthen the capacity of local authorities to evacuate persons living in disaster-prone areas;

(n) To establish a mechanism of case registry and a database of mortality caused by disaster in order to improve the prevention of morbidity and mortality;
(o) To enhance recovery schemes to provide psychosocial support and mental health services for all people in need;
(p) To review and strengthen, as appropriate, national laws and procedures on international cooperation, based on the Guidelines for the Domestic Facilitation and Regulation of International Disaster Relief and Initial Recovery Assistance.

## Appendix 8A: Table showing activities that cross-sector collaborations partially contributed to

| Priority | Partial contribution | Collaborations contributing |
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| **Priority 1: Understanding disaster risk** | "(e) To make non-sensitive hazard-exposure, vulnerability, risk, disaster and loss-disaggregated information freely available and accessible, as appropriate" | The wetlands conservation collaboration informs people of the risks of living on wetlands available to people living on wetlands however the political interference and corruption mean people are still building on wetlands. |
| | "(f) To promote real time access to reliable data, make use of space and in situ information, including geographic information systems (GIS), and use information and communications technology innovations to enhance measurement tools and the collection, analysis and dissemination of data" | The drought resilient project made use of the u-reporting tool that shared real time information that includes maps with communities.<br>• u-reporting tool is funded by one partner |
| | "(g) To build the knowledge of government officials at all levels, civil society, communities and volunteers, as well as the private sector, through sharing experiences, lessons learned, good practices and training and education on disaster risk reduction, including the use of existing training and education mechanisms and peer learning" | Community health clubs – peer to peer learning and training LG and community on the use of the u-reporting tool (1- Drought resilience project) |
| | (h)To promote and improve dialogue and cooperation among scientific and technological communities, other relevant stakeholders and policymakers in order to facilitate a science policy interface for effective decision-making in disaster risk management | The wetlands developmental guidelines collaboration involved academic stakeholders to incorporate the scientific aspects of wetlands management<br>• Centralised decision making<br>• Other community members voices not included<br>• Power imbalances – CSOs not having their voices incorporated in guidelines |
| | "(l) To promote the incorporation of disaster risk knowledge, including disaster prevention, mitigation, preparedness, response, recovery and rehabilitation, in formal and non-formal education, as well as in civic education at all levels, as well as in professional education and training" | Field trips contribute to incorporating disaster risk knowledge in non-formal education (1- wetlands conservation) |

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| **Priority 2: strengthening disaster risk governance** | "(a)To mainstream and integrate disaster risk reduction within and across all sectors and review and promote the coherence and further development, as appropriate, of national and local frameworks of laws, regulations and public policies, which, by defining roles and responsibilities, guide the public and private sectors in: (i) addressing disaster risk in publically owned, managed or regulated services and infrastructures; (ii) promoting and providing incentives, as relevant, for actions by persons, households, communities and businesses; (iii) enhancing relevant mechanisms and initiatives for disaster risk transparency, which may include financial incentives, public awareness-raising and training initiatives, reporting requirements and legal and administrative measures; and (iv) putting in place coordination and organizational structures;" | Wetlands utilisation guideline collaboration<br>• Centralised decision making<br>• Voices of other partners (CSOs) not incorporated<br>• Other community members not represented |
| | "(g) To establish and strengthen government coordination forums composed of relevant stakeholders at the national and local levels, such as national and local platforms for disaster risk reduction, and a designated national focal point for implementing the Sendai Framework for Disaster Risk Reduction 2015–2030." | Drought committees (1- Food and cash distribution)<br><br>Co-ordination of state actors dealing with water issues (1- potable water by 202 and water task force teams)<br>• Power struggles between NG and CSOs |
| **Priority 3: investing in disaster risk reduction for resilience** | "(g) To promote the mainstreaming of disaster risk assessments into land-use policy development and implementation, including urban planning, land degradation assessments<br>and informal and non-permanent housing, and the use of guidelines and follow-up tools informed by anticipated demographic and environmental changes;" | The wetlands guideline development collaboration aimed at ensuring that EIAs were standardised for land use planning and incorporate wetlands use in the guideline<br>• Centralised decision making<br>• Other community members voices not included<br>• Power imbalances – CSOs not having their voices incorporated in guidelines |
| | "(j) To strengthen the design and implementation of inclusive policies and social safety-net mechanisms, including through community involvement, **integrated with livelihood enhancement programmes,** and access to basic health-care services, including maternal, new born and child health, sexual and reproductive health, food security and nutrition, housing and education, towards the eradication of poverty, to find | Livelihood component through community health clubs (1-Drought resilience project) |

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| | durable solutions in the post-disaster phase and to empower and assist people disproportionately affected by disasters;" | |
| | "(k) People with life-threatening and chronic disease, due to their particular needs, should be included in the design of policies and plans to manage their risks before, during and after disasters, including having access to life-saving services" | People with chronic illness prioritised in terms of receiving food (1-food and cash distribution)<br>• Food only in the form of maize |
| | "(n) To strengthen the sustainable use and management of ecosystems and implement integrated environmental and natural resource management approaches that incorporate disaster risk reduction" | Ensuring holistic management of wetlands and stewardship (2-wetlands utilisation guideline and wetlands conservation)<br>• Political interference<br>• Voices of other partners not reflected in guidelines<br>• Government turning a blind eye to developments on wetlands |
| | "(p) To strengthen the protection of livelihoods and productive assets, including livestock, working animals, tools and seeds" | The drought resilient programme has a component that helped maintain livelihoods through community gardens and peer to peer learning |
| **Priority 4: Enhancing disaster preparedness for effective response, and to build back better in recovery, rehabilitation and reconstruction** | "(a) To prepare or review and periodically update disaster preparedness and contingency, policies, plans and programmes with the involvement of the relevant institutions, considering climate change scenarios and their impact on disaster risk, and facilitating, as appropriate, the participation of all sectors and relevant stakeholders" | Updating water strategy document (1- water strategy document development)<br><br>Development of wetlands utilisation guideline (1- wetlands utilisation guideline development)<br>• Voices of other members not reflected in guidelines |
| | "(b) To invest in, develop, maintain and strengthen people-centred multi-hazard, multisectoral forecasting and early warning systems, disaster risk and emergency communications mechanisms, social technologies and hazard-monitoring telecommunications systems; develop such systems through a participatory process" | Making use of early warning systems developed by other collaborations (1- food and cash distribution)<br>• Did not develop or maintain EWS but rather made use of EWS developed by other collaboration |
| | "(e) To adopt public policies and actions that support the role of public service workers to establish or strengthen coordination and funding mechanisms and procedures for relief assistance and plan and prepare for post-disaster recovery and reconstruction" | Standing committees activated during drought seasons to help with relief assistance (1-food and cash distribution)<br>• Standing committees were not coordinated<br>• No funding mechanism in terms of other food stuff |

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| | "(f) To train the existing workforce and voluntary workers in disaster response and strengthen technical and logistical capacities to ensure better response in emergencies" | Volunteers in wetlands management (1- wetlands conservation collaboration). Volunteers in food distribution (1 food and cash distribution collaboration)<br>• No training involved in both in terms of disaster response<br>• Logistical capacity of food and cash distribution was still not co-ordinated |